DOCTOR OF PHILOSOPHY

Co-designing in love
towards the emergence and conservation of human sustainable communities

Salazar Preece, Gonzalo

Award date:
2011

DOCTOR OF PHILOSOPHY

Co-designing in love: towards the emergence and conservation of human sustainable communities

Gonzalo Salazar Preece

2011

University of Dundee

Co-Designing in Love: Towards the Emergence and Conservation of Human Sustainable Communities

Gonzalo Salazar Preece

Thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy (PhD) in Design

Centre for the Study of Natural Design

Duncan of Jordanstone College of Art and Design

University of Dundee

Month of Submission: June 2011

Table of Contents

List of Figures

List of Tables

Acknowledgments

As I write this section after four years of research, I realise that it carries part of the answer to the questions I deal with in the following pages. I would like to give my most sincere gratitude to all of those beings who have attentively and kindly given me the opportunity to carry out this research; to all those who have treated me as a legitimate person and have encouraged me to feel, reflect and write about the world in which I live, through my own eyes and from my own experiences and perspectives. The content of this work is derived in a large part from many conversations I have shared with many people. Among them, I am particularly grateful to my best friend in Scotland and who has also been the supervisor of this thesis, Professor Seaton Baxter. He cannot imagine all that I have learnt from him nor, I have still realized, all that I will keep learning from our relationship. I am so grateful for his unconditional support and encouragement to develop my own ideas, and to show me by example that the basis of true education is the art of listening.

Many thanks to all my friends and colleagues of the Centre for the Study of Natural Design and to Daniel Wahl with whom I conversed about many of the ideas present in this research.

I would also like to thank the institutions that supported this research: to the Chilean National Scholarship Program for Graduate Studies – President of Chile Scholarship. Without its support this research could not have been possible. In a time and culture at great haste, it gave me the necessary time to think, to read, to investigate and to write. To the Design Research Committee, School of Design, University of Dundee, I am grateful for two field-research grants, and to the National Library of Scotland and Edinburgh University Library my thanks for providing me with the main source of bibliographic consultation.

I owe my special debt to the people of four European Ecovillages: Svanholm Collective, Denmark; Keuruu Ecovillage, Findland; Sieben Linden, Germany; and Findhorn Foundation, Scotland. I cannot put into words how much they have taught me. Each of them, from their own

experiences and visions, from the bottom-up, contribute deeply to change our emotions towards cooperative forms of living. I will never forget their great hospitality and how they let me be part of their every-day lives, how they shared their knowledge, their food, their jobs, their songs, games, and meetings with me. Many thanks to all of them!

I am also so grateful to the absolute support of all the members of my family—my Pochoco. I would like to particularly thank my mother, Elizabeth Preece, for her unlimited tenderness and for always being present.

Finally, I would like to extend my gratitude beyond words to my wife Daniela Justiniano, whose gentle wisdom has been crucial for the ideas expressed in this work. Her love made this work possible for me. Her company has made this journey one of the most beautiful experiences I have ever lived.

Declaration of Authorship

I hereby declare that I, Gonzalo Salazar-Preece, am the sole author of this thesis; that unless otherwise stated, I have consulted all the references cited directly; that the work of which the thesis is a record has been done by me; and that this thesis has not, in whole or part, been previously accepted for a higher degree.

Gonzalo Salazar Preece

Summary

This work is part of a wider personal and eco-cultural wondering about how to restore and conserve the pleasure of living aligned with the ecology of life. There is a growing concern that one of the biggest challenges we have is to generate sustainable communities. Based on this, the research particularly deals with the following two questions: What is ecological design? And, how does Ecological Design both emerge from, and contribute to, the constitution and conservation of human sustainable communities in our Western-European culture? The research proposes that the only way to understand the practice of ecological design is by dealing with the broader dynamics of human ecology—or, ultimately with what it means to be a human being. Based on a systemic, interdisciplinary and multidisciplinary approach, the research first explores the phenomenological and bio-cognitive dynamics that generate an ongoing, embodied–ecological epistemology of the human-Nature relationship, thereby overcoming the modern dualism of mind-body and man-nature. It suggests that design ineluctably takes place in this embodied-ecological domain—particularly, in an ongoing eco-cultural network of interactions. Then it explores the emotional basis of human intentionality and behaviour and, based on the work of the biologist Humberto Maturana, proposes that human beings exist in a dynamic interweaving of languaging and emotioning in an eco-cultural medium. This is synthesised through the notion of conversation. The research claims that to design is to converse. Based on this, the research then explores biological and philosophical accounts of the emotion of loving. By exploring basic elements of a synthesis of the ecology of loving, the research suggests that this emotion is the only one that allows the emergence and cultivation of intimate socio-ecological relationships. Accordingly, it also argues that loving is the foundation of environmental ethics and ultimately, the practice of ecological design. The research also explores the conscious sense and practice of *homing* (or home-making). It argues that homing and loving are interdependent; they form a circular causality—homing-in-love. The research suggests that homing-in-love is what we do when we design ecologically. Finally, the research explores a general framework that may contribute to the process of recovering the vital dynamics of homing-in-love in a global age. In a four-month ethnographic investigation of three Western-European ecovillages, the research explores particular designed platforms of conversation as examples of the practice of ecological design from which more sustainable manner of homing are emerging and being cultivated.

Introduction

My Ecosophy P[1]: Reflections from the Mapocho River

It was an early spring morning in the Santiago foothills: the sky opened in deep blue from the dark damp smelling earth of the previous night's rain. The dragonflies emerged attracted by the nectar of the giant Quillay tree which dwells next to my window and the Queltehues drank water from the river, announcing a day full of song. Together with my father, my uncle and my childhood innocence we got ready to go up the Pochoco for the first time; an elegant mountain that shelters the back of my house.

Enthusiasm makes me trip on the first step of my climb and there I begin a spontaneous and sincere dialogue with each stone, cactus, tree and animal that appears before me. I bombard them with questions and they begin to enchant me with their answers. My astonishment is so overflowing that it moderates my tiredness and thirst. On reaching the summit, two condors, masters of the heights await to show me the most spectacular view from their flight: the eternal white immensity of the of the Andean mountain range, a six thousand metre cathedral and mother of the Mapocho river which waters all life in the valley where I live, interconnecting each being that lives there.

That first fun-filled adventure grew into a sacred rite. On each assent I would cultivate a conversation with my family members, friends, animals, trees and insects. At each arrival on the summit, a place of reflection and rest, I would discover that together we are all a part of a whole which unifies us in the same life pulse. Thus for as long as I can remember, the Pochoco would open my eyes. It and I have emerged together, we have made ourselves. This view from its top is my view

[1] Following Arne Naess, I use the term 'My Ecosophy P' to identify and explain my own philosophy, my own way of seeing myself in the world in socio-ecological terms. See Arne Naess, *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, trans. David Rothenberg (Cambridge University Press, 1990), 37.

point, and the cultivation of an intimate relationship with several of its inhabitants is my fire; my home. From my Pochoco, not only do I look at and understand the world, what I am and what surrounds me, but also that, it is there where my way of living in the world has been forged. It is the starting point of each adventure, the centre of my cosmos. The story and thoughts that I tell in these pages and the world I create out of my life, I do within these boundaries, from my visions and my blindness, not from a sort of objective, disconnected view point.

Neither the Pochoco nor I are remote islands, but participants of the Mapocho valley. I have had the fortune to grow up at the feet of the Andes, next to the pure free water of the Mapocho River just before it crosses Santiago and continues its journey to the Pacific Ocean. Thus, as if I were the river water, in my daily descent to the city, in a journey through the valley from its birth to its centre, I have been able to appreciate and interact with the varied ways of inhabiting this valley, with different and often opposing realities; the reality of the native forest, the reality of the muleteer, the reality of the wealthy, that of the poor, that of work, that of misery, that of the everyday things, that of the street dog, that of tenderness, that of aggression, and that of the colony, etc. Realities which are all connected by this river, that have left an imprint on the creation of this unique, unrepeatable valley. But this valley is also a genuine microcosm of our cultural reality, where today the best and the worst of our globalised and dualist society are found face to face; a reality which extends far beyond where the sea meets the land and the barrier of the mountain range.

Perhaps it was only the first human inhabitants of this river who understood its complex flows and rhythms, its marked seasons. They wove their lives enmeshed with the other beings of this trembling volcanic earth and its sudden changes. The Mapuche poet, inhabitant of the central and southern valleys of this band of earth at the end of the world, is perhaps the only one who speaks from within about this mountain and this river, the only one who can understand its languages and become part of their family:

At night, by the hearth, we listened to chants, stories, and riddles. We breathed the aroma of the bread baked by my grandmother, my mother or my aunt María; while my father and my grandfather—the community's Lonko[2]*—observed attentively and respectfully…Sitting on my grandmother's lap I listened to the first stories about trees and stones that talk among themselves, and with animals and the people: "one must learn", she said, "to interpret their signs and perceive their sounds that sometimes are hidden by the wind"…The earth doesn't belong to the people. Mapuche means People of the Earth—they went on saying.*[3]

But those are distant times, fires which go out. The vast majority of us have lost the capacity to read the language of this river; we have forgotten how to live with it, and with the constant change of the rest of Nature. Some centuries ago, the conqueror arrived on horseback from a distant Olympus, master of the 'universal truth' and with the mission of 'making the Americas'. And he founded the modern phase of the valley of Mapocho- he called it 'Santiago'-, and with that the unbridled colonisation of the river began, as well as everything and anything that might serve to maintain his power and to feed his insatiable greed. Since then, we have wrested everything from the vernacular inhabitants, from the river and its stones, trees and animals – their colours, scents, sparkle, flights, rites and chants, their languages, and their lives. We have cornered them right up to the very last spots of this and other valleys.

Starting from the Pochoco, a few kilometres down the river, I realize that the water no longer runs free. Great dams and walls have been built to restrict its flow, 'to order its natural disorder', some would say. But the truth is that this is all due to our incomprehension of its music. Hence our desire to silence it, to direct it so that it passes quickly, hopefully unnoticed. We want to dominate the land and bury it under the paving stones of a modern world. Thus we have exchanged life next to the

---

[2] Head in Mapudungun – the Mapuche language. The Lonko is the chief of a Mapuche community.
[3] Elicura Chihuailaf Nahuelpan, *Message to Chileans*, trans. Celso Cambiazo (Trafford Publishing, 2009), 23-25.

horizontal flow of the river for the vertical life of power; and we have wanted to construct other cathedrals hopefully higher than the mountain range itself, so as to overpower it, to transcend it. We have wanted to build a firm and lasting ground like steel and cement so as to hide, bury and hopefully replace that terrain which vibrates with the rhythm of the river and the roar of the mountain. And buildings sprout like mushrooms and the tarmac expands throughout the valley faster than lichen on rock, covering the most fertile ground you have ever seen and the knowledge necessary to inhabit it. But to whom could this old obsolete knowledge matter! Winds from another world bring the good news, it is preached. For the centenary of Chile's Independence from the Spanish, someone proposed transforming the river into a canal so as to leave behind 'its pestilence and filth' and thereby construct a Santiago 'to the standards of the best Paris and London boroughs'. Oh Santiago, false identity, imposed and copied.

And when the fertile land is no more, what shall we do? It doesn't matter, if we keep advancing upon other regions even further away, globalising, as they say these days, to pieces of land even further south which are filled with virgin smelling matter. The conqueror advances, dragging, unearthing and cheating the "ignorant" countryman into becoming part of this new world full of new possibilities and dreams.

The inhabitants of Santiago multiply from a few hundred to several million and soon we become a plague. The countryman and the potter leave behind their art of creating and soon they become urban consumers. Crafting a life with the flow of the present together with the wisdom of the valley's clay is replaced by the design of future-oriented lives with materials and ideas brought from other worlds. We no longer live, we plan... and then, we consume. Santiago, consumerist and materialist sponge, heartless troglodyte of forests, fish and minerals, plastics and petrol from other latitudes. Grey advances and green dies out. The soul of the green is no longer seen, only its usefulness. It is the simple instrument for the design and execution of a squared, mechanized, standardized metropolis. The diversity of greens formed by the Peumo, the Boldo, the Guayacán and the Quillay are replaced

with a tropical palm monochrome. The sky's blue and the fine weather southern wind disappear giving way to the oppressive winter smog, and the white mountain range is now no longer visible in the reflections of big buildings. We triumph! and we drown.

Neither the river nor the city ends at this point. Only a little further ahead of my stroll alongside the river, there, hidden behind the arrogance of the paving stone and under the bridge of modernity, the canalised Mapocho shows its cruellest side. Very few, you see, are privileged enough to tread this modern bridge and very many have to support it with their blood. The famous 'American dream'- maybe the biggest swindle of the twentieth century, the worst terrorism of our era, has forced or hypnotised millions of people from this and other valleys to believe in it. And for what? Simply, to take everything from them, the little that they had. Not only mirror-like buildings grow in Santiago but also just behind them, just round the corner, inequity and poverty. It is there in those small dwellings of cardboard and zinc, one on top of the other next to the river, that the other face of globalisation is apparent. There where day by day people kill each other and prostitute themselves so they can eat and so that finally a few others are drawn by the drug of money and power. It rains in a winter Santiago. A grey cloak of desolation, of desperation, of cold falls and drenches bones in the mud of poverty. Acid rain falls and erodes the soil, pollutes the river and little by little steals the smile from millions who wait with thirst.

'Bitter river', Pablo Neruda called it. *Mapocho river, when night falls / and, like a black recumbent statue, / sleeps under your bridges with a black cluster / of heads smitten by cold and hunger / like two immense eagles, O river, / O harsh river born of the snow, / why don't you rise like an immense phantom / or a new cross of stars for the forsaken?*[4] In this forgotten world, where things are manifest in their greatest nudity and toughness, one sees not only the worst but also the best of what it means to be a Human Being. From pain and difficulty the human ingenuity also emerges with great

[4] Winter Ode to the Mapocho River, in Pablo Neruda, *Canto General*, trans. Jack Schmitt (University of California Press, 1991), 235.

expression: cooperative work, mutual aid. Because they know the effort involved, neighbours make themselves available to help each other to take bread and soup to their children's tables. The popular festival begins! full with colours embodying the true flower of hope, showing us that if we really want to, we can change the world from the inside, from the bottom up, from our own homes, together with those of our neighbours.

But few manage to escape the bitter river of poverty. Many others think they have escaped it when they join this new plastic culture, so full of things and so empty of understanding. We live in 'the disposable world... everything is thrown away, everything is disposed of and meanwhile we produce more and more rubbish'. And where does all this rubbish end up? As far away from my house as possible! we all say. That is how it goes. At the outskirts of the city, next to the poorest, everything is thrown away that is of no use in a hurried life, which runs rapidly to the tune of its own vertigo. The river follows its course through the valley to present itself in other villages with its new coat based on plastic and nylon, bottles and cardboard boxes, mobile phones, television sets and semi-new but obsolete cars. Yes, this stinking river is the same one that other villages further downstream drink from, the same one that waters the apple, grape and pear that we eat, the same one that surely ashamed flows out to where its father the sea is to tell him about its journey though Santiago.

'Let no one despair', the new conqueror would say, this time reborn as a businessman or politician, 'we need to continue to grow so as to fix any possible disease'. And once again the people trust, and they hand over to him the fruit of their labour in the hope that it will translate into health, education and safety. And the open pit copper mine, shameless open pit, is cut a little deeper and now the need is not to build one but five hydroelectric mega-dams so as to live in this post-modern world, and a couple more southern fiords are needed for the new salmon farms and hundreds of more hectares of millennium native forests will be replaced with soulless pine plantations, and desertification now knocks on the doors of the vine-full Mediterranean valleys. Meanwhile, the population of Santiago continues to grow. We become a part of a globalised society. We learn much from other places in the

world but there is also enormous suffering due to the shameless dominance of other countries. But the time has now arrived when this disorganised and suicidal system will fall once and for all. It is not my intention to promote the return to a remote past but to question the ethical principles of our current life style. Certainly the change is going to be sudden, maybe even catastrophic, maybe not. But do we have any other way out? When the economist, sociologist, politician, architect, oligarch and heartless consumer no longer see what is sacred in Nature, but just 'natural resources', and when people are seen simply as mass, numbers, or 'human capital', it does seem that change is inevitable. But let's not deceive ourselves either. Here we are all conquerors and conquered. In this valley at least the colony has never ended. On the contrary, the conquerors have been conquered and these then conquered by others, and these others by others. We are creators of a conquering culture, or rather self conquering. We have become puppets of an uncontrolled system, the invisible hands of market forces. We raise hell when we see atrocities committed in other parts of the world. But we do not realise the misery that we have here in our small world, in our own lives. And that, very probably, the cowardly killings, the swindles, and the fanaticism in these and other parts of the world are born within ourselves.

It breaks my heart to see that I can no longer walk out of my house and go up the Pochoco because the city continues growing without guidelines or respect and the street has been fenced in. It breaks my heart to see my Pochoco bleeding its own erosion. It breaks my heart that there are now hardly any dragonflies to be found in the Quillay by my window and that the lichens are drowning in smog. It breaks my heart to see so much poverty, so much misery hidden behind the luxurious cars of a rich few. And it breaks my heart even more when I realise I am causal of this valley which is dying on us.

But it is here, in the mixture of the received love from my Pochoco and my realisation of the crises in which we exist, that my hope is reborn. I am an optimist, yes; and I don't care that they accuse me of being naive. I want to believe that that small piece of forest or that pair of imprisoned condors still await us patiently to teach us their song and their flight. Or those few indigenous dwellers who

although ‘exhausted from so much war and so much swindle’, are still here to tell us that ‘the world is a shared dwelling’[5]. I know this because I still feel it. Something of that primal, carnal, native blood knowledge still remains in our ‘fires’. As it happened that first day I climbed up the Pochoco with my father and my uncle, each day after the rain is like a gift of life. It gives us once again a new opportunity to be reborn and to begin to breathe pure air. Each rain washes the air of Santiago and in a magic act the sky appears naked, intense blue, and amongst the buildings the White Mountain reappears talking to us with its great stateliness inviting us to believe in it once again. It seems as, if for a while, the city and the natural valley are one. Life, you see, generates life and until this process stops, it will always give us a chance to start anew, to change our attitudes to each other and to ourselves. Then we can begin dancing in unison again – to begin a conversation in which ethics and aesthetics come together. I hope that when we meet with the forest and the condor in the mountain, when we begin to listen to ourselves, it is not too late.

I return to the summit of the Pochoco. I realise that the various crises that we live through are not technological or economic as is often thought. They are a crisis of ethics. And I understand why hundreds of years ago the Incas left a child looking at the cycle of water, of our lives, from the height of the mountain that guards this valley[6].The Andean mountain range is a place of wisdom, it has “given birth” to the river which passes through our lives on its way to its meeting with the Pacific and in a continuous and magical recycling, the water falls from the sky, returns regenerated to the mountain to water the valley again, and to start a new cycle. The mountain range is the Teacher that shows us that we are a part of this continuous cycle. And I ask myself some of the most ancient questions: How should we live in this valley? How do we harmoniously reintegrate into the continuous flow of this river and once again converse in its language? How does a new way of

---

[5] Eduardo Galeano, *Memoria Del Fuego*, vol. 3 (Siglo Veintiuno Editores, 1982), 304.
[6] The ‘Plomo Mummy’ or ‘Boy of El Plomo’, ‘is the well preserved remains of an Incan child found on Cerro El Plomo in 1954. It was the first frozen mummy discovery of high-altitude human sacrifice by the Incas’.

relating with our families, neighbours and siblings, animals, plants , fungi and insects, stones and minerals emerge, a way in which we can listen to each other and design our lives together? What sort of river do we want to leave to the other villages in this valley, to our children, to our Pacific Ocean? How can we create and build a harmonious or sustainable life in this modern and globalised world?

It would seem that we are not few who are asking these questions to themselves. Words such as sustainability or ecology little by little become full with meaning. Several are creating new urban parks by the river, new recycling systems, new conservation areas, and it would seem that each day more people visit the mountain with respect... and little by little we begin to learn from it and finally from ourselves. But so that a harmonious life can emerge in this and other valleys the change that is needed is fundamental; it is a deep change of method, of form.

… It was in a spring morning when, a child, together with the love received from his family and the harmonious chant of the rest of Nature, they initiated an intimate and affective journey; a journey in which they were co-creating the world they inhabited…

Two words come to mind: philosophy and ecosophy. I like to think that the former, usually understood as love of wisdom (Philia, love + Sophia, wisdom), is in truth the contrary: the wisdom of love. And that the latter, that personal, unique and once only philosophy, that is, the wisdom of the home (Eco, home + Sophia, wisdom) is intimately related to the former. They are born and grow together, they are interdependent. Maybe, who knows, the change to a more *eco*-logical life is much closer and is much simpler than we think.

Four years ago, from the summit of the Pochoco I felt that I had to take responsibility for these questions. I decided to make a reflexive journey on the interdependence of the wisdom of *homing* and the wisdom of *loving*. These are phenomena that today, I believe, are essential to once again understand and create harmoniously or sustainably next to the song of the Mapocho. The following work is the momentary result of this journey which, like the river, follows it course continuously.

Research Questions and Sequence of the Argument

My specific purpose in this thesis is to attend to the pool of questions expressed above by dealing with a group of two formal, and interconnected research questions: ***(1) What is ecological design? And (2) how does ecological design take place, or what is its role, in the holistic process of generating and conserving human sustainable communities?***

Connecting these two pools of questions – one about personal, ethical and ecological reflections with another about the more formal practice of ecological design – is not trivial. In contrast, by doing this, I am suggesting that, (1) in order to understand the problem and dynamics of ecological design it is necessary to focus our attention on the domain of human ecology—namely, to understand how a human individual relates to itself, other human beings, and the rest of Nature in a harmonious or sustainable way. (2) The problem and practice of both human ecology and ecological design, is first and formost, ethical—i.e. how we *should* relate to ourselves and the other inhabitants of our mediums. So, a major challenge is to understand what are the basic dynamics implicit in the emergence and conservation of an environmental ethics. And (3) that the following thesis, rather than generating a definite, transcendental and objective theory of human ecology and ecological design, is an embodied and ecological synthesis that is part and parcel of my Ecosophy P.

So, the starting point of this work is that, if we want to understand the notion of ecological design and the creation and conservation of sustainable communities in a global age, we must ultimately reflect on what it means to be a human being. In this sense, in the following pages I will direct my attention to the study of some basic dynamics of human ecology from which I will extract essential aspects necessary to develop a new synthesis of ecological design.

In considering these points, I will explore three interconnected dynamics that I will argue are fundamental for the generation of a more holistic synthesis of both human ecology and ecological design. They are: the epistemology of *doing*, the emotion of *loving*, and the conscious sense and

practice of *homing* (or home-making). Each of them constitutes a section in this thesis—I. Steps to an Ecology of Doing, II. Steps to an Ecology of Loving, and III. Steps to an Ecology of Homing. The titles of these sections are borrowed from Gregory Bateson's 'Steps to an Ecology of Mind'[7]. From a humanistic and scientific point of view, Bateson's work was a turning point towards the study of human ecology in more holistic and interdisciplinary terms. Worried about the segregation and mechanisation of human cognition during the Modern age, a central aspect of Bateson's work was the reunification of the human mind with human ecology—the re-amalgamation of inner-outer, mind-body and human-Nature into a whole dynamics. I consider my research as a continuation of this effort. Thus, the interconnection of the three sections of this research, or the theme of this study, maybe rephrased as Steps to an Ecology of Humanness.

The method of approaching this synthesis is systemic. This implies the following main points:

First, I suggest that the social and ecological crisis we are facing is ultimately ethical—i.e. how should we relate with the other. However, in practice, this crisis is constituted by a complex network of social and ecological issues that take place in unique fashions in different human and non-human ecosystems. Also, it is a crisis that is constituted by, and has effects on, our epistemologies, our emotions, spiritualities, practices, and designs. Considering this complexity, each section of this thesis examines different aspects of this crisis. Section I focuses on the epistemology of the human-Nature relationship; Section II, on the emotional basis of this crisis; and Section III, on more practical and in-placed dynamics. However, I do not try to prove the existence of these crises. I take them as a premise. They are seen as starting points for a change.

Second, it is necessary to generate interdisciplinary and multidisciplinary forms of research. Today, not only Schools of Design, but also every academic field is restricted to a modular form of education incapable of tackling the challenges of this era. As many ecologists and educators claim,

---

[7] Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology* (Aylesbury: Intertext, 1972).

the first step is to initiate a deep process of 'ecological literacy'.[8] This demands us to make a bold effort of learning from other academic domains, and so finally to bridge people and perspectives in an interdisciplinary platform of conversations. Thus, in this research I will drawn heavily on the sciences of biology, cognition, ecology and anthropology; on the Western philosophy of emotions and love, and on phenomenological philosophy; on researches about ecological designs and sustainability; and on more integral and elegant writings of human integration in Nature. I will also gain insight from areas traditionally outside the academy, particularly from local initiatives towards the creation and conservation of sustainable communities. Thus, in practical terms, the content of this thesis is based on two forms of investigation. The first is largely bibliographic and the second is in-field, ethnographic research.

And third, a systemic view implies questioning the very basis of the edifice of the Western worldview. This means passing from a Newtonian linear and mechanical science to one that understand life phenomena in nonlinear dynamics, commonly known as dynamic system theory. It also means passing from a philosophy occupied with finding a definite and objective essence to one that explains life as a dynamic embodied and ecological event. It also implies passing from a vision and practice of design in purely technological and functional terms, to one that is integrated in social and ecological dynamics. And finally, it means passing from an emotioning of control and aggression to one of respect and cooperation.

Each section of this thesis is divided into chapters. Although each chapter is in the form of an essay and stands largely on its own, it is a constituent part of a larger synthesis. There are both explicit and implicit links between the chapters. In the overall sequence of the material, the phenomena and ideas explained and synthesised in a chapter are taken into account in the subsequent chapters. As I said

---

[8] David W. Orr, *Ecological Literacy: Education and the Transition to a Postmodern World* (SUNY Press, 1992); Fritjof Capra, *The Web of Life: A New Synthesis of Mind and Matter* (HarperCollins, 1996); Stephen R. Sterling, *Sustainable Education: Re-visioning Learning and Change* (Green Books for the Schumacher Society, 2009); Arran Stibbe, *The Handbook of Sustainability Literacy: Skills for a Changing World* (Green Books, 2009).

earlier, in each chapter I explore a specific 'dimension' of human ecology from which I construct and synthesise important concepts and phenomena related to ecological design and/or environmental ethics. The implicit and explicit conjunctions of these ideas, I propose, generate the basis for a new synthesis of ecological design.

In this thesis, I use the pronouns *his* and *her* interchangeably. I make no difference between genders in this thesis. Yet, in order to facilitates the reading, I predominantly use the pronoun *his* when I refer to the lover, and *her* or *it* to the beloved. The same occurs with nouns such as *man* or *craftsman*. They are not used to denote a specific gender.

Finally, although I sometimes go very deep into a theme, this thesis is not about specificities, but rather about generating the links between ideas and explanations largely disconnected in the academic domain.

The following outline of the thesis may provide a helpful guide. (Table 1 synthesises the structure of the thesis and links the main premises explored and proposed in each section).

Steps to an Ecology of Doing

The whole research is based on a systemic approach that understands the phenomenon of life as an ongoing ecological phenomenon, which among other things transcends modern and post-modern epistemologies that have created unsustainable dichotomies between mind and body, and humanness and nature. In this sense, following the approach of phenomenological philosophy and the systemic biology of cognition and life, this section could also be called 'Steps to an Ecology of Life'. In Chapter 1, I introduce the problem of ecological design in terms of the relationship between human and nature. In the task of understanding life and cognition from a more holistic and systemic perspective, I gain inspiration from two interconnected sources. The first comes from biology, particularly from the work of Humberto Maturana and Francisco Varela and to a lesser degree from Gregory Bateson. The second comes from phenomenology, particularly from the perspectives of

Edmund Husserl, Maurice Merleau-Ponty and Martin Heidegger. The main epistemological perspective that unites these two sources is the understanding of the form of life in general and human being in particular, not as a static self that reveals a pre-existent world 'out there' as proposed by modern philosophy and science, but as an enactive, embodied and ecologically in-placed 'self-in-process' from which life continually emerges and is conserved. This gives me the bio-cognitive basis to understand the basis of the human ecology of living (or doing) and to present the practice of design as an ineluctably embodied, dynamic and ecological phenomenon—namely as part and parcel of the ongoing generation of an eco-cultural network of interactions.

In Chapter 2, the research explores the notion of emotion in depth. From the work of several authors mainly from the bio-cognitive and social sciences, I argue that emotion is an embodied, self-organizing process that continually defines human behaviour; it is ultimately part and parcel of the phenomenon of cognition and the human capacity of sustaining its existence in an eco-cultural world. I also argue that human emotioning is continually shaped by the eco-cultural medium in which the individual exists. From this perspective, a new synthesis of human existence is proposed: Human beings, I suggest, live in an ongoing act of *conversing*—every human action is a conversation. Following Maturana, conversation is defined as the interweaving between human action and emotion. From this synthesis, a new understanding of design emerges. I argue that to design is to converse, and therefore, among other points, I propose that, in order to understand the roots of our-eco-cultural crises and the practice of ecological designs we need to pay attention to the human emotional domain.

Steps to an Ecology of Loving

Chapter 3 deals with the emotioning of love from a biological perspective. It argues that emotioning of loving is the main emotion, or a human biological essence, that allows the emergence of intimate relationships both in social and ecological terms. This is mainly done through examining and linking Maturana's 'biology of love' and the notion of 'biophilia' by Wilson *et al*. That is, I suggest that

human beings are socio-ecological mainly because they are loving/biophilic beings. From there I will argue that the essence for the emergence of an ecological or natural consciousness is through the dynamic interconnection between self-love, social love and the love of the rest of Nature.

Chapter 4 is about the dynamics of loving – it is mainly focused on the question of what it implies to love. The chapter is divided in three parts. The first one, generates a synthesis of the three main notions of love in Western philosophy – Plato's *eros*, Aristotle's *philia, and* Christian' *agape* – from an ecological perspective. The second part identifies and reflects on two common and main difficulties of the Western philosophy of love that I consider essentially anti-ecological and that ultimately negates the phenomenon of loving. The third part explores and elaborates the basic aspects towards a synthesis of an 'Ecology of Loving' by incorporating the material reviewed in the Sections I and II of the thesis, and by drawing on other contemporary philosophies of love. From this standpoint a new synthesis of a-*manner*-of-designing is presented: co-designing-in-love. I argue that co-designing-in-love is actually the bedrock of what is usually called ecological design.

Steps to an Ecology of Homing

This Section is an attempt to understand the notion of conversation in general and loving conversation in particular (or co-designing-in-loving) in relation to the experience-based sense and practice of homing (or home making). Chapter 5, explores the phenomenon of homing from the etymology of two Western terms: (1) the German *bauen,* as dwelling-in-the world as explained by Heidegger and then reviewed by Ingold; and (2) the Spanish *hogar,* as an ancient Classical manner of understanding and organizing communitarian living in relation to the fire. Both terms, will help me to generate a more holistic synthesis of homing in social, ecological and Cognitive terms. From this standpoint, I argue that, in a sort of circular dynamics, the phenomenon of homing is also essential for the emergence and conservation of the emotion of loving. Thus, the dynamics of 'homing-in-love' is presented as the phenomenon that synthesises the essential dynamics of human ecology and that of ecological design.

The last two chapters are an exploration about recovering the dynamics of homing-in-love in the globalised, Western-European culture. Chapter 6 deals with the notion of homing-in-love in more practical terms. It is fundamentally concerned with the importance of recovering intimate, communal or local forms of homing in a global age. It examines the more practical side of our socio-ecological crises with the ultimate intention of offering a general framework in spiritual, socio-economic and environmental actions for the re-localization of homing and from which the dynamics of homing-in-love may emerge and begin to be conserved once again.

Chapter 7 examines more deeply how ecological design is part and parcel of the process of creating and conserving sustainable communities in a global era. That is, I explore how the practice of ecological design both emerges from and influences the socio-eco-spiritual relationships of particular sustainably oriented communities. This chapter is an ethnographic report resulting from three months of field-research in three Western-European ecovillages. The communities studied were 'Svanholm Collective', Denmark; 'Keuruu Community', Finland; and 'Sieben Linden', Germany.

Patrick Geddes, probably one of the pioneering human ecologists and ecological designers of our global era, postulated that a more holistic process of learning about our inhabitation in the world, about our humanness, relied on the re-integration of what he called the 'three H's'—Heart, Hand and Head.[9] I like to think that *loving*, *homing and doing (*or *knowing)*, respectively resonate with Geddes's three 'H's'. Ultimately, together they constitute an invitation to re-educate ourselves about how to live in more harmonious ways with ourselves and the other inhabitants of our world.

[9] See Alastair McIntosh, *Rekindling Community: Connecting People, Environment and Spirituality*, The Schumacher Briefings (Green Books for the Schumacher Society, 2008), 55-56.

Table 1.1: Structure of the thesis: main premises explored and proposed for the generation of a synthesis of human ecology and ecological design

	STEPS TO AN ECOLOGY OF DOING/LIVING		STEPS TO AN ECOLOGY OF LOVING		STEPS TO AN ECOLOGY OF HOMING	
	CHAPTER 1	CHAPTER 2	CHAPTER 3	CHAPTER 4	CHAPTER 5	CHAPTER 6 & 7
ETHICAL, SOCIO-ECOLOGICAL CRISIS	Human epistemological separation from Nature; Subject-Object dichotomy; Belief in an objective and transcendental reality; Technologically oriented design; low ecological accounting.	Negation of the emotional domain of humanness; Domineering, arrogant and aggressive emotional pattern of living and designing.	Separation of self-love, social love and love of the rest of Nature; Loss of biophilia.	Universalism of love and its transcendental, teleological, instrumental and progressive understanding; Union and separateness as a misleading understanding of humanness and love.	Separation and reduction of the notion of home; artificial-natural, private-public and male-female dichotomies; Belief that design creates a world before its embodied-ecological immersion.	Loss of the spiritual roots of homing; spirituality of transcendence; Unethical global economy and the breakdown of local homing; Global warming, the last call of Nature.
HUMAN ECOLOGY SYNTHESIS	Humans exist in an ongoing, embodied-ecological dynamics (i.e., being-in-the-world, or in continuous conservation of autopoiesis and structural coupling); There is no definite, transcendental reality; Humans exist in language in an eco-cultural domain that presuppose their particular embodied-ecological life. →	Emotion is an embodied, self-organizing and eco-cultural dynamics that defines intention; Human beings exist in conversation (appraisal-emotional amalgams) - in a dynamic eco-cultural network of conversations; To understand the roots of the socio-ecological crisis it is necessary to pay attention to the emotions that create it. →	Human beings are biologically dependent on love both in social and ecological terms; they evolved in a biocentric domain; Love is the emotion that allows the emergence and cultivation of intimate socio-ecological conversations; love and socio-ecological intimacy form a circular causality. →	The ecology of loving is: (a) an embodied, self-organizing emotion; (b) the essence of an environmental ethics;(c) loving of oneself, the other and their mediums for their own sake; (d) the essence of intimate consensual-cooperative and respectful relationships; (e) the art of living in the flow of the present. →	The experience-based sense of homing is a human necessity; The ontology of homing occurs in unique, embodied-ecological processes; Homing is 'dwelling-in-the-world' - it is the fire-place of ones existence; homing and loving configure a circular causality: homing-in-love; Homing-in-love is the basic dynamics of human ecology. ←	Recovering homing-in-love through: (a) a spirituality aligned with embodied-ecological dynamics in the flow of the present; (b) a socio-economics that encourages self-reliance and direct democracy; (c) a bioregional re-inhabitation that encourages eco-cultural learning; direct control of ecosystems feedbacks, and respect and enhancement bio-cultural diversity.
ECOLOGICAL DESIGN SYNTHESIS	**Design is part and parcel of human's ongoing, embodied-ecological existence**; It is a human action that implies languaging and self-consciousness; As an embodied-ecological action, it is an eco-cultural phenomenon. →	**To design is to converse;** Design is commanded by emotions; Design facilitates human conversations; Design is part and parcel of an eco-cultural network of conversations; Every human being is a designer; The designer is fully responsible for what he designs. →	**Natural/ecological consciousness emerges through the dynamic interconnection between self-love, social love and ecological love;** it occurs in socially and ecologically intimate and recurrent relationships**.** →	**Co-designing in love** is the essence of ecological design; listening is the first action of ecological design; ecological design can create platforms that may trigger and conserve the emotion of loving in human beings →	**Ecological design is Homing-in-love;** through co-designing in love, a cooperative and respectful creation and conservation of a physical and sense of home emerges, which in turns is fundamental for the conservation of a loving manner of designing. ←	The most appropriate form of ecological design is the root-based, communitarian Learning-by-doing creation and conservation of sustainable forms of conversing; the role of design is **the creation of platforms that enhance the cultivation of cooperative and respectful homing.**

SECTION I: STEPS TO AN ECOLOGY OF DOING

Chapter 1

A Phenomenological and Bio-Cognitive Introduction to the Human Ecology of Living: Building the Basis of the Ecology of Design

Man, Nature and Design: the Crisis of the Modern Epistemology

During the history of the family *Homo – i.e. from the first Australopithecus, to the Homo habilis, Homo erectus, Homo sapiens, and Homo sapiens-sapiens* – uncountable societies have comprehended their relationship with the rest of nature in distinct ways, and acted accordingly. For more than three thousands years, our Western-European culture has cultivated its unique way of relating to the rest of nature. Yet, the main epistemology about human-nature relationship – i.e. how we understand our ecological existence in the world – has lead us to practice a form of living that is both socially and ecologically on the verge of collapsing.

The notion of 'ecological design', although implicitly ancient in many particular cases in this and other cultures, has emerged, during the last few decades, as a line of thought and practice that is not only questioning our current epistemologies and worldviews but also calling for a practical change. It is commonly said that the aim of ecological design is to facilitate a sustainable relationship between human beings and the rest of nature. For example, Sym Van der Ryn and Stuart Cowan suggest that 'thinking ecologically about design is a way of strengthening the weave that links nature and culture'[1]. In David Orr's words, 'it is the careful meshing of human purposes with the larger patterns and flows of the natural world…'[2] In this way, ecological design is presented as an activity that will (hopefully) contribute to fixing the 'miscalibrations' between man and the rest of nature, which, in many ways, is a system of crises triggered by

[1] Sim Van der Ryn and Stuart Cowan, *Ecological Design*, 1st ed. (Island Press, 1996), 18.
[2] David W Orr, *The Nature of Design: Ecology, Culture, and Human Intention* (Oxford University Press, 2002), 20.

previous 'myopic design'[3]. In this context, particularly during the last decade, the call for a necessary change has spread fast and multiple forms of design have been emerging both in the local and in the global domain with the aim of recovering a more sustainable path of living.

Yet, how do we know that this 'new' ecological design, as a cultural reaction to 'conventional' design, embodies a truly new form of acting that will not only solve our environmental problems but also nurture more sustainable possibilities and forms of relationships? How do we know if this call for new forms of actions is really ecological and sustainable?

My concern is that, if we do not really see and comprehend the roots of the man-nature 'miscalibration', and act accordingly, then the consequences of our designing are going to be even more devastating. Considering the advanced state of our social and ecological system of crises and its global interconnected extension, this is a 'luxury' that we can no longer afford. Although it is through real actions that our current crises may be overcome, the source of our problem lies in a deeper domain—what Daniel Wahl calls 'meta-design'. As Van der Ryn and Cowan comment, 'in many ways, the environmental crisis is a design crisis. It is a consequence of how things are made... [Yet] design manifests culture, and culture rests firmly on the foundation of what we believe to be true about the world'[4]. In Fritjof Capra's words, our systems of crises may be 'just different facets of one single crisis, which is largely a crisis of perception'.[5]

That is, I think that how we design is deeply influenced by our epistemological understanding of our existence in the world. I have said in the introduction of this thesis that our eco-social crises are ultimately an ethical problem—i.e. how we *should* relate to the other and to ourselves. But within this crisis, I think that there is an epistemological crisis—i.e. how we *understand* our perception of and relationship with the other and with ourselves. So, if the crisis that we are facing is partly a crisis of perception, I believe that one of the first steps we need to take is to re-think *what perception means*—to understand the ecological and cognitive dynamics implicit in

---

[3] Van der Ryn and Cowan, *Ecological Design*, 9; Orr, *The Nature of Design: Ecology, Culture, and Human Intention*, 14.
[4] Van der Ryn and Cowan, *Ecological Design*, 9.
[5] Fritjof Capra, *The Web of Life: A New Synthesis of Mind and Matter* (HarperCollins, 1996), 4.

the human-environment relationship—to understand the ecology of humanness. As I said in the introduction, to do this, means that we must ultimately try to re-understand what it means to be a human being. This is the essence of the ecological call.

Thus, only when we re-understand the cognitive dynamics of our ecological existence, will we be in a completely new epistemological domain from which to (maybe) grasp the very roots of our crisis and therefore to give space to re-generate an authentically ethical and ecological change.

In this sense, the main question of this chapter is, how are we to understand the cognitive relationship between the individual and his environment, or between man and the rest of nature? How can we coherently explain the human ecology of living, and situate the action of design as part and parcel of it?

In the following pages, I will briefly explore the basis of a new epistemology about the ecology of human living independently developed by two lines of research. The first line comes from the philosophical bases of phenomenology, and of particular importance to me, is the work of Maurice Merleau-Ponty[6]. The second line comes from the science of biology and cognition (which I will call bio-cognitive science from now on). Here, I am particularly interested in the vision developed by Humberto Maturana[7]. I consider that these two lines are implicitly interwoven and are part of a major, more systemic and holistic, movement that, although eclipsed by the power of our modern epistemology for many centuries, has always managed to survive. Among many of the commonalities between these two lines (which go far beyond the scope of this thesis), there are three which are particularly important for my research. First, the two lines of research have critically questioned the modern assumption that there is a transcendental and objective reality that, not only happens independently of living beings (or human beings in particular), but also is considered as the essence of existence. Second, they argue that the embodied existence of living beings in recurrent interaction with their medium is the source, 'the

[6] The works of Edmund Husserl, Martin Heidegger, and more recently, Tim Ingold, are also very central to me.

[7] The works of Gregory Bateson, Francisco Varela, Evan Thompson, Vittorio Guidano, and Fritjof Capra are also important in my bio-cognitive exploration in this chapter.

point of departure', of all that human beings do; everything that humans do and know depends on being in a world that is inseparable from their own bodies—from their 'embodiment'. Through this embodied inhabitation, life becomes meaningful for human beings. Thirdly, life, or more accurately being-in-the-world, is a continuous process; neither the world nor the self are static and separable things that can be described and analysed as pure facts. We cannot 'possess' life itself, it just 'happens'[8].[9]

Before exploring these points in more detail, it is necessary to briefly summarize the core of the mainstream epistemology of the human-nature relationship as conceived by the Western-European culture—namely, one of *human's separation from and domination over nature*.

The most eloquent source of this separation can be found in the old assumption that human beings possess a disembodied soul or mind that transcends, almost divinely, the soulless and unthinkable world of matter, including all other beings, and even our bodies. In Aristotle's writing we can already see the supposition that human beings only possess a soul that not only has access to a more divine realm but also differentiates it from a more corruptive natural environment. This vision was however intensified to its extreme during the sixteenth and seventeenth centuries, particularly with the emergence of a 'mechanical' understanding of the world—a 'world-machine'[10]. Great scientists, such as Galileo and Descartes, were the architects of this epistemology.

Galileo thought of the world as a pure physical machine, as a mathematical order. Nature, for him, is essentially impersonal and non-spiritual—mindless. Thus, he proposed that the only correct form to study and explain its functioning was through a quantitative approach, thereby

---

[8] Hans-Georg Gadamer said: "the self that we are does not possess itself: one could say that it happens". Gadamer, quoted in V. F. Guidano, *The Self in Process: Toward a Post-Rationalist Cognitive Therapy* (Guilford Press, 1991), 7.

[9] For similar commentaries see, for instance, Francisco J. Varela, Evan Thompson, and Eleanor Rosch, *The Embodied Mind: Cognitive Science and Human Experience*, 1993rd ed. (MIT Press, 1991), 149; Humberto Maturana and Bernhard Poerksen, *From Being to Doing: The Origins of the Biology of Cognition* (Carl Auer Verlag, 2004), 19; Guidano, *The Self in Process: Toward a Post-Rationalist Cognitive Therapy*, 28,29; Tim Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (Routledge, 2000), 173; Maurice Merleau-Ponty, *Phenomenology of Perception* (Routledge & Kegan Paul, 1962), Preface and Introduction.

[10] Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 19.

neglecting any qualitative factor. As he famously stated, 'mathematics is the language with which God has written the universe'.

> Philosophy is written in that great book which ever lies before our eyes—I mean the universe—but we cannot understand it if we do not first learn the language and grasp the symbols, in which it is written. This book is written in the mathematical language, and the symbols are triangles, circles, and other geometrical figures, without whose help it is impossible to comprehend a single word of it; without which one wanders in vain through a dark labyrinth.[11]

This mechanical vision culminated epistemologically in the work of Descartes. For him, nature was just a vast, inert machine, constituted by smaller parts, such as animal's bodies, which were also constituted by even smaller parts, such as organs, and so on. In this context, the *analytical* capacity of Mathematics to understand the properties of parts was the only 'adequate key to unlock the truth of nature'.[12] For Descartes, only the human mind – or soul – escaped the material world. In this sense, he generated an epistemology that separates nature, and the human existence, into two ultimate and mutually independent realms, the *res extensa* and the *res cogitans.* The former was the mathematical, unthinkable world, including the inert matter, other living beings, and the human body; the latter, was the thinkable mind or spirit, the exclusive realm of human rational intelligence.[13]

Descartes' simplistic mathematics was soon abandoned, but the essence of his epistemology, originating in ancient Greece or even earlier, has endured until now. Particularly significant has been the assumption that there is an ultimate, transcendental reality that can be objectively disclosed by the intelligence of reason. This assumption has been the perfect excuse to promote man's domination over and exploitation of the rest of nature.

A large part of our Western-European culture assumes that the world which each one of us perceives is ultimately a single and transcendental reality—namely, that reality exists independently from us. In philosophical/scientific terms, this form of understanding reality is

---

[11] Galileo Galilei, quoted in Edwin Arthur Burtt, *The Metaphysical Foundations of Modern Science* (Routledge, 2000), 64.
[12] In Ibid., 98.
[13] For more details see Ibid., 107-116.

usually referred to as positivism or also 'passivist-cognitivist'[14], 'transcendental ontology'[15] , or 'objective reality'[16]. From this standpoint, we believe that human beings perceive the world by representing the objective 'facts' of the world in their minds.[17] So, it is assumed that an adequate rational disclosing of this information is essential for surviving and adapting to the pre-established conditions of the world 'out there'. Contrarily, those who might see things 'differently' from any given 'majority' are considered to have lost the ability to disclose and represent the real world.

This epistemology has been used to generate and cultivate human domineering behaviours, thereby leading to the generation of an ecology based on the exploitation and denigration of other human and non-human beings. As John Ehrenfeld comments, it is ultimately 'one of the root causes of unsustainability'[18]. Maturana sums up this vision as follow:

> [T]he notion of reality existing independently from us corresponds with the belief that it is possible to achieve authoritative, universally, valid statements. These may be used to discredit certain kinds of experience. It is the reference to this reality that is held to make a statement objective and universally valid; in a culture based on power, domination and control, it provides the justification for forcing other people to subjugate themselves to one's own view of things.[19]

This domineering attitude based on a transcendental ontology is full of examples that have shaped our Western-European society from its 'cradle'. In Genesis 1:26, for example, God said, 'Let us make man in our image, in our likeness, and let them rule over the fish of the sea and the birds of the air, over the livestock, over all the earth, and over all the creatures that move along the ground'. Aristotle also argued that non-human beings exist for the use of human beings; they

---

[14] Walter Freeman, "Emotion is Essential to all Intentional Behaviors," in *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, ed. Marc D. Lewis and Isabela Granic (Cambridge University Press, 2000).
[15] Maturana and Poerksen, *From Being to Doing: The Origins of the Biology of Cognition*, 40.
[16] John R. Ehrenfeld, *Sustainability by Design: a Subversive Strategy for Transforming Our Consumer Culture* (Yale University Press, 2008), 24.
[17] I will come back to this point later in this chapter and in Chapter 2
[18] Ehrenfeld, *Sustainability by Design: a Subversive Strategy for Transforming Our Consumer Culture*, 24.
[19] Maturana and Poerksen, *From Being to Doing: The Origins of the Biology of Cognition*, 39; See also Humberto Maturana, "Reality: The Search for Objectivity, or the Quest for a Compelling Argument," *The Irish Journal of Psychology* 9, no. 1 (1988): 29.

are instruments for human beings to use.[20] Even more, he justified slavery and man's power over women, since they were considered less rational and less intelligent when compared to man's (philosophical) intellect. The Holy Christian cross, the ultimate 'divine truth', was used not only to guarantee the orthodoxy of those converted from other religions, but also to subjugate and even kill hundreds of 'bestial' indigenous cultures in America and Africa from 15th to 17th Century. During the last 50 years, we have been witnesses and participants in a Global neo-capitalism which, very much commanded by United States, is forcing many cultures to subjugate to the rules of the 'free' market. And we have created an imperialistic technocratic form of existing that is leading us to literally wipe out millions and millions of species from planet Earth.

This whole epistemology has had major consequences for the way we understand and practice design. Particularly since the rise of the Enlightenment and the Industrial Revolution, we have assumed that there is a 'built environment' (or 'artificial environment') that is isolated from and positioned over a 'natural' one. Unfortunately, this is exactly what we have done. Every human design is thought to specifically belong to the former domain. So, planning after planning and brick upon brick, we have created a domain exclusively dedicated to the flourishing of the 'cultural' man—to his rational, disembodied intelligence. The so called natural world, the one that the cultural man has to dominate, has become 'the garden of Eden' that the modern designer uses for the elaboration of his 'built environment'. I will come back to this point later in Chapter 5.

By now, I want to stress that the main practical method of designing this 'built environment' has been through 'technology'—understood, in modern terms, as 'the application of scientific knowledge for practical purposes'[21]. Design, it is thought, is a sort of applied science that creates technology and thereby generates technocratic societies. Design is seen just as the planning and production of artefacts that, through purely mechanical reasoning, solves 'practical' problems. That is, implicitly following a Galilean mechanism, not only has nature been treated as a logical

---

[20] Johnson Donald Hughes, *Ecology in Ancient Civilizations* (The University of New Mexico Press, 1975), 64.

[21] "technology". Oxford Dictionaries. April 2010. Oxford Dictionaries. April 2010. Oxford University Press. http://english.oxforddictionaries.com/view/entry/m_en_gb0848700 (accessed March 14, 2011).

machine, but so too our societies and the means – the modern designers – through which they have been created. We cannot deny that modern technology has helped us to solve many problems and has generated a lot of joy and valuable knowledge. But, its modern focus has also generated several 'myopic' practices.

Exclusively inserted – and even trapped – in this 'built environment', the modern designer has not kept himself informed by paying attention to other 'natural' dimensions. Furthermore, the modern designer has thought that, since both the cultural and the natural worlds are sorts of machines, every emerging problem must be solved by designing new, more efficient machines (or artefacts).[22] There will always be a solution, a better technology. After a few hundred years, this ecologically uninformed, purely 'functional', and progressive form of designing has triggered amazingly complex environmental crises. Simply, the modern designer has lost his knowledge about how nature works and how we must relate to it in order to generate a sustainable dynamics. Even more, he has lost the understanding of his own humanness—his own nature. The modern designer has dramatically lost his art, namely the art of being a human being full of sensations, meaning, folklore, and spirituality. The globalization of modern design has neglected any form of design associated with the sensuous aspects of the body, or the ecology of the rest of nature, or any spiritual form. Almost every form of indigenous or vernacular design, for example, has been wiped out by 'always more efficient' modern designs.

Moreover, since modern design is the 'application' of an always correct and objective science, the designer believes in universal models applicable to every human system. He does not consider particularities, differences, or exceptions. He simply designs *a priori* to his inhabitation in the world. Also, because of this objectivism, he does not see himself as responsible for the consequences of his actions. Since it is assumed that things happen in the world with or without our involvement in them, the modern designer not only sees himself as a passive observer of potential crises, but also is unaware, or what is worse, does not want to recognize, that those

---

[22] David W. Orr, *Ecological Literacy: Education and the Transition to a Postmodern World* (SUNY Press, 1992), 24-25.

crises might be triggered by his own actions. Every one of these points will be attended to more deeply in the course of this thesis, and particularly in Chapters 5 and 6.

What is important for us now is to understand that, if we are about to make a significant step towards a more sustainable path of living, we must overcome the current mainstream epistemology of the human-nature relationship. If we continue operating from this epistemology we will hardly solve our socio-ecological crises. As Erwin Laszlo says, the main problem today is that 'we are trying to do exactly that. We are fighting terrorism, poverty, criminality, cultural conflict, environmental degradation, ill health and other "sicknesses of civilization" with the same kind of thinking—the means and methods—that produced the problems in the first place'.[23] Thus, in Orr's terms, it is necessary to pass from the practice of a 'technological sustainability' to a more 'ecological sustainability'—from a modern epistemology to a post-modern one—thereby, 'finding alternatives to the practices that got us into trouble in the first place'[24]. I think that a first step to doing this, following Arne Naess, is by asking *deep questions.* Only by doing this, will we change these immutable characteristics of our modern epistemology. I think that this is exactly what the supporters of phenomenology and a systemically oriented bio-cognitive science have done since the beginning of the last century. They have contributed to the emergence of an epistemology much more coherent in cognitive and socio-ecological terms.

Phenomenology: the Philosophical Change towards an Embodied Ecology of Living

Phenomenology is the Western philosophical view that has most significantly and emphatically questioned the modern subject-object dichotomy and its belief of an ultimate and objective reality that transcends experience. Edmund Husserl, although still influenced by this modern tradition, and partly following (and also criticising) the earlier ideas of Descartes, Kant, Brentano and Whitehead, explicitly inaugurated the philosophy of phenomenology in the early 1900s as an open reaction to traditional science based on pure mathematical and mechanical principles, such as the Galilean approach to the explanation of the physical world. However, Husserl did not want

---

[23] Ervin Laszlo, *The Chaos Point: The World at the Crossroads* (Piatkus Books Ltda, 2006), 3.
[24] See Orr, *Ecological Literacy: Education and the Transition to a Postmodern World*, chap. II.

to discredit the value of science and its duty of looking for ultimate facts. Indeed, for him phenomenology was the study and description of 'essences', such as the essence of life and cognition. Yet the main difference from the traditional approach was that it would be done by putting the essences back into the human *experiences*; that is, to describe phenomena from and through the subjective immediacy of a lived world. [25] In fact, Husserl presented phenomenology as the 'science of experience' and claimed that it was the highest of theory, the ground of the other sciences.

In the beginning, Husserl tried to develop the idea that man's experience was subjective. By this, he meant that experience was uniquely determined by the internal procedures of the mind that was fundamentally different to and isolated from, the traditional, and as he said, the 'naïve', belief on the supposed existence of a factual and objective world. He thought that this 'transcendental' construction of mind dislocated from the world, would allow him to explore the 'essence' of experience which was prior to any factual science. Although from this standpoint he was able to explain in a revolutionary way that the experience of a world is fundamentally determined by the uniqueness of each subjective agent, describing experience as a closed and solitary or even solipsistic phenomenon that happened in a disembodied mind – a clear Cartesian influence – led Husserl into a trap. He had great difficulties explaining how man's subjective existence occurred in socio-ecological relationships with other beings. That is, how this solitary subjectivity was part and parcel of a relational domain—the intersubjective.

In his later work[26] however, Husserl recognized his struggles and turned to claiming that an explanation of the phenomenological experience had to consider what he technically called the 'life-world' – this, he would say, is not the abstract and transcendental world as explained by modern science, but the immediately lived experience of the everyday, of the social, the 'surrounding world of life'. He then claimed that the experience and animation of the life-world was necessarily mediated by the human body, or what he called the 'lived-body'. Thus, he

---

[25] Edmund Husserl, *Ideas: General Introduction to Pure Phenomenology*, trans. W.R. Boyce Gibson., Library of Philosophy (Allen and Unwin, 1931).
[26] Edmund Husserl, *Cartesian Meditations. An Introduction to Phenomenology*, trans. Dorion Cairns (The Hague, 1960).

claimed that the lived-body was not only the centre of man's experience but also the mediator to the opening of the subject to a medium. That is, he claimed that the body was the 'always persisting point of relation' for everything that is experienced; even more, he proposed that 'everything that appears belongs to [the body's] environs'[27]. Furthermore, the lived-body was for Husserl the unique form to experience a phenomenal world which was also full of *other* bodies. Namely, it enabled the opening up of oneself to 'empathically' perceive other subjective beings, other 'centres of experience'[28], that inhabited the life-world. This was the cornerstone that allowed Husserl to free himself from the critics of solipsism and to explain intersubjectivity as a phenomenal domain of experience articulated through the relationship of multiple sensing subjects.[29] I will come back to this point later in this chapter.

In the context of my criticism of the modern epistemology of life and its conception of the medium or that of nature, Husserl's account started a new philosophical understanding of the so-called objective space of the world by overcoming the feverish 'mathematization' of the world. The objective world for him was not any more a bodiless, abstract intuition, nor a domain disarticulated from the lived experience, but rather it was constituted by the lived-body through the articulation of varied lived-places that were part and parcel of the lived-world. Husserl asserted:

> In geometrical and natural-scientific mathematization, in the open infinity of possible experiences, we measure the life-world—the world constantly given to us as actual in our concrete world-life—for a well-fitting garb of ideas, that of the so-called objectively scientific truth.[30]

Husserl's later turn to the importance of the human body, the intersubjectivity of the life-world and his initial claims that an objective world cannot be disclosed separately from human experience, started to revolutionize traditional philosophy. Yet he could not liberate himself from

---

[27] Edmund Husserl, in Edward S. Casey, *The Fate of Place: a Philosophical History* (University of California Press, 1997), 218.
[28] David Abram, *The Spell of the Sensuous: Perception and Language in a More-Than-Human World* (Vintage Books, 1996), 39.
[29] Ibid., 38.
[30] Husserl, In Casey, *The Fate of Place: a Philosophical History*, 220.

his earlier assumption of the Cartesian belief of the existence of a transcendental self or mind that was ultimately separable from the bodily phenomenal experience.[31] For Husserl, the body was still a sort of instrument of a transcendental mind, despite its centrality to human experience. In this sense also, despite the argument that science and every human activity presuppose the life-world, Husserl always insisted that phenomenology was the highest form of theory that describes the essence of human existence. That is, his explanation of phenomenology seemed to conceptually transcend the life-world. From a truly phenomenological perspective however, the explanation of phenomenology must presuppose the life-world too.[32]

However, it is in the work of French philosopher Maurice Merleau-Ponty around the middle of the twentieth century that the initial or exploratory philosophy of Husserl becomes truly phenomenological. The lived-body was for Merleau-Ponty the starting point of his philosophy, deeply explained in his 'Phenomenology of Perception' originally published in 1945 (firstly translated into English in 1962).[33] There, he emphatically rejected any primal vision that would conceive the self (or mind) as a transcendental disembodiment. In contrast he simply but revolutionarily wrote: 'I am my body'. With this he did not mean that the body is a container of a pre-existing self or the mind in Cartesian terms, but rather that the body is a total expressing being in itself, a 'body-subject'[34]. That is, he proposed that the body was not that physical, un-minded structure that can be separated into pieces as conceived by traditional physiology, nor an instrument or a mediator of the mind as conceived by traditional psychology. Rather, the body is a total subject-organism, the *subject of experience in action* that, as he borrowed from Husserl, possesses its own 'corporeal intentionality'.[35] In simple words, he asserted that every human activity, from walking in the park to theoretical reflection, is done by one's *embodied existence*. He suggested:

---

[31] Abram, *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*, 45.
[32] Varela, Thompson, and Rosch, *The Embodied Mind : Cognitive Science and Human Experience*, 18.
[33] Merleau-Ponty, *Phenomenology of Perception*.
[34] Ibid., 206.
[35] Ibid., xvii-xviii.

> The union of soul and body is not an amalgamation between two mutually external terms, subject and object, brought about by arbitrary decree. It is enacted at every instant in the movement of existence.[36]

By understanding the experiencing 'body-subject' as a total being, Merleau-Ponty aimed not only to overcome the modern psychical-physical separation of the individual but ultimately 'to leave behind us, once and for all, the traditional subject-object dichotomy'.[37] He claimed that the subject's existence as a process that is continually going on is the very source of expressive movement (or intentionality) and orientation in the world. In other words, the ongoing movement of human existence results in continuous *inhabitation*, or as he said following Heidegger, in being-in-the-world.[38] 'The body', Merleau-Ponty asserted, 'is the vehicle of being in the world, and having a body is, for a living creature, to be involved in a definite environment, to identify oneself with certain projects and be continually committed to them'.[39] In this sense, it follows that neither the body-subject nor the world which it inhabits can be defined and characterized independently from each other: 'The world is inseparable from the subject, but from a subject which is nothing but a project of the world, and the subject is inseparable from the world, but from a world that it projects itself'.[40]

Being-in-the-world, this inseparability between man and world, is the ultimate argument of what Francisco Varela et al., following Merleau-Ponty, have referred to as the 'fundamental circularity of human reflection'[41]: man will always find himself ineluctably immersed in a world, living within a world which seems to be there before he starts reflecting – this is what Merleau-Ponty called 'the pre-objective' and 'pre-conscious' realm. Yet the explanation of that pre-given world is not separate from our living in it. As Ingold synthesises in negative terms, 'only because we are immersed in the world can we imagine ourselves as existing separately from it'.[42]

---

[36] Ibid., 88.
[37] Ibid., 174.
[38] Ibid., 429-430.
[39] Ibid., 82.
[40] Ibid., 430.
[41] Varela, Thompson, and Rosch, *The Embodied Mind : Cognitive Science and Human Experience*, 3.
[42] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 169.

The circularity of reflection explains more clearly, or in phenomenological terms, Husserl's initial attempt to present phenomenology as the 'science of experience' that describes the 'essence' of human existence. As Merleau-Ponty claimed, 'all my knowledge of the world, even my scientific knowledge, is gained from my own particular point of view, or from some experience of the world without which the symbols of science would be meaningless. The whole universe of science is built upon the world as directed experienced…science is the second-order expression'.[43] Heidegger had also arrived at a similar conclusion focusing his criticism on the Cartesian philosophy which proposed that things exist in their own domain, in their objective 'occurrentness', which are disclosed by the observer (or the subject).[44] Heidegger's concern, in Ingold's words, was that 'the Cartesian ontology, which takes as its starting point the self-contained subject confronting a domain of isolable objects, assumes that things are initially encountered in their pure occurrentness, or brute facticity. The perceiver has first to make sense of these occurrent entities – to render them intelligible – by categorizing them, and assigning to them meanings or functions, before they can be made available for use.'[45] Heidegger criticised this point because it totally neglects the particularity of human experience. In contrast he proposed that every individual, including the scientist, is primarily and foremost a 'being-in-the-world', so all that is perceived is already part of the lived experience of the immediate, that is, how things become 'available' through our experiences. Every human action, including human reflection and scientific explanation, 'takes place against a background of involved activity'; 'it draws unselfconsciously upon the available'.[46] Briefly, the objectivity that modern science claims to strive for presupposes the experience of everything as it is lived. This is the phenomenological clarification of one of my concerns expressed at the beginning of this chapter: to posit human existence and reflection on an abstract and displaced philosophical realm which

---

[43] Merleau-Ponty, *Phenomenology of Perception*, viii.
[44] Reviewed in Hubert L. Dreyfus, *Being-in-the-World: a Commentary on Heidegger's Being and Time, Division I* (MIT Press, 1991), 109-127; Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 168-169.
[45] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 168-169.
[46] Ibid., 169.

neglects the lived-body (or the subject-body) and its prior in-habitation in a world, that is, being-in-the-world, is totally misplaced.

Merleau-Ponty's theory of the acting body immersed in a world is already a theory of perception. Briefly, in phenomenological terms, a correct understanding of perception must be moved from one of *representation* of a given world to one of *being with* a world, from the *static* to the *active,* from the *trap* of objective thinking, to the *flow* of the phenomenal.

While the understanding of being is unviable without the world it inhabits at every moment—namely, being-in-the-world, perception then is the process that makes this inhabitation possible. It is apparent that perception, for Merleau-Ponty and phenomenologists in general, is not an event 'subordinated to' a world 'ready made'; it is not a matter of picking up and processing information that some how lies *outside* the experience of the embodied subject, as a brute fact detachable from its existence. Rather, perception seems to be associated with, or seems to be an essential part of, the very process of embodied existence, or more precisely, the continuous inhabitation of a world. As he said, senses are not registers of an external world, but part of a whole body-in-action[47]: 'we perceive the world with our body'; 'the body is the subject of perception'[48].

Merleau-Ponty argues that, in contrast to the tradition of 'objective thinking', 'the thing is inseparable from a person perceiving it, and can never be actually in itself because its articulations are those of our existence'. Perceiving a thing is only possible through exist*ing*, through the *movement* of the 'subject of perception'. Although the vision of a certain object, from the point of view of one's body, may initially appear as incomplete or even illegible – e.g. by perceiving a cube from my body I can only see one angle or side, a flat face not a cube, it is through lived-movement, by continually 'delving into the thickness of the world by perceptual experience', by sensing from different perspectives in time, that the perceived – e.g. a cube – comes to be a total object. It is presented to oneself through one's embodied *inhabiting*. In this

[47] Merleau-Ponty, *Phenomenology of Perception*, 317-318.
[48] Ibid., 206.

sense, perception is an ongoing event. Both the perceiver and the perceived are temporal phenomena. Not only does the perceiver continually change its embodied disposition and perspective towards the perceived thing, but also the perceived seems to continually change in its own rhythm too, so, every time that a thing is perceived, it seems that it has changed.

On the one hand, this explains why it is incorrect to conceive perception as the passive disclosure of static and final objects. A static and isolable understanding of the world, we have seen, is just pure fiction. Yet, on the other hand, this also explains that perception is not a solipsistic construction of the body (or the mind). For without the experienced existence of the other, there would be nothing to perceive. Rather, perception occurs through the *ongoing experience* of inhabiting a world that is full of other beings and things. In this sense, the ongoing perception of other things and beings (and also oneself) appears as or is embedded in a process of continuous 'encounters'[49] or 'practices of engagement'[50] with other beings, thereby dynamically constituting a network of interaction—a medium. Ultimately, Merleau-Ponty understood perception as reciprocity in movement, as 'communication or communion': 'The relations between things or aspects of things having always our body as their vehicles, the whole of nature is the setting of our own life, or our interlocutor in a sort of *dialogue*'.[51]

Perception as ongoing reciprocity is ultimately, in Heidegger's terms, dwelling-in-the-world, or, as I will explore in the last part of this thesis, *homing*—namely, that embodied and in-placed process of feeling part and parcel of an intimate socio-ecological 'nest' which is conserved through continuous interactions. That is, perception in human beings is also a conscious state. We are aware that through ongoing reciprocity we create a world. In other words, the reciprocity of perception is part and parcel of the intimate process of becoming oneself within the ecology of life. Although perception is an ongoing event in which both oneself and the world are continually changing, through reciprocal intimacy, one's inhabitation of the world becomes familiar and 'stable' enough to cultivate inner-and-outer identity. Snyder's words synthesise the interweaving

---

[49] Shierry Weber Nicholsen, *The Love of Nature and the End of the World: The Unspoken Dimensions of Environmental Concern* (MIT Press, 2003), 65.
[50] See Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, chap. 3 and 6.
[51] Merleau-Ponty, *Phenomenology of Perception*, 373.

between perception, reciprocity and the intimacy of homing: 'After twenty years of walking right past it on my way to chores in the meadow, I actually paid attention to a certain gnarly canyon live oak one day. Or maybe it was ready to show itself to me. I felt its oldness, suchness, inwardness, oakness as if it were my own. Such intimacy makes you totally at home in life and in yourself'[52]

Bio-Cognitive Science: towards a Systemic Explanation of Living and Cognition

A significant change in the way we can understand the process of living – e.g. the organization of life, the phenomenon of perception and cognition (and mind), and the organism-medium interconnection – was independently developed by the biologists Gregory Bateson and Humberto Maturana around the 1960s and 1970s. Both of them emphatically rejected the traditional understanding of the world of life as just a mixture of physical material and energy (or what we will call 'structure'), and the subjugation of its general organization (or what we will also call 'form') to just physical 'appearances'.[53] For them, the living world, or more accurately the 'life-process', involved something much more complex than purely physical and objective 'facticity'. Actually, this 'old' vision was for them a basic element or a consequence of the false division of mind and body. Considering the scope of this chapter, in what follows, I will pay greater attention to Maturana's account, since I consider that it is the most important biological-cognitive-systemic theory that explains the phenomenon of life and cognition as a whole. Although doing this, I am being a little unjust to the work of Bateson which is full of deep ecological wisdom. Nevertheless, I will begin briefly by addressing a few cognitive points developed by Bateson, since they can function as a base, or a starting point, for a more holistic and ecological understanding of the ecology of life.

The central and most important concept in Bateson's account was his understanding of 'mind'. He questioned the traditional conception of mind as a fixed, isolable and anthropocentric

---

[52] Gary Snyder in, Nicholsen, *The Love of Nature and the End of the World: The Unspoken Dimensions of Environmental Concern*, 65.
[53] For a similar commentary see Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 16.

phenomenon. For him, the traditional thought of a physical individual (or being) in itself, clearly separated from the medium, and the resulting assumption of 'mind' as a process constrained within the brain '*as against* the world of nature "out there"', was totally misplaced. Rather, in his view, the individual was certainly dynamic and ecological, so the mind, or more accurately, mind's process, should be understood as intrinsic to the systemic process of organism-medium relationship.[54] That is, in Bateson's view 'Mind is systemic, not inside the head'[55]; it is about informing and communicating with a world. As a systemic phenomenon, he proposed that mind is an 'aggregate of interactive components'[56]. In biological terms, this means that mind is a process involved in (or that evolved through) certain systemic complexities present in all living organisms ('the Creatura') and even in larger eco-systemic phenomena. With this latter point he dismissed the traditional thought of mind uniquely restricted to higher nervous systems and brains, or even more narrowly, to human consciousness. In the human domain, in fact, the greater process of mind is unconscious - only a small part of the mind's processes reaches the 'screen of consciousness'.[57] Thus, Bateson conceived mind 'as immanent in all living organization and without which no order in nature could occur'[58].This enlarged and more systemic vision of mind was central in addressing his famous questions 'what sort of thing is this which we call "organism plus environment"?'[59]. In his later book 'Mind and Nature: A Necessary Unity', in which he elaborated six interconnected criteria that configure the phenomenon of mind,[60] he was not only willing to address the significance of mind processes in the organism-medium relationship, but ultimately, and from it, to discover the 'pattern that connects' all living beings. He asked: 'What pattern connects the crab to the lobster and the orchid to the primrose and all of

---

[54] in Ibid.
[55] Peter Harries-Jones, *A Recursive Vision: Ecological Understanding and Gregory Bateson* (University of Toronto Press, 1995), 74.
[56] Gregory Bateson, *Mind and Nature: A Necessary Unity* (Fontana, 1980), 102.
[57] Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology* (Aylesbury: Intertext, 1972).
[58] Harries-Jones, *A Recursive Vision: Ecological Understanding and Gregory Bateson*, 74.
[59] Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*, 423.
[60] To examine each of them now goes beyond the scope of this chapter, yet I will intend to relate them, to some extend, with Maturana's theory of life and cognition.

them to me? And me to you?'[61] Thus, what is truly important for us now is Bateson's explanation of mind and nature in terms of *relationship* and *pattern*. This vision started a new epistemology for the understanding of cognitive processes in more ecological and systemic terms; understanding life-process beyond an ecology based on pure physics; and contributing to overcoming the Cartesian separation between mind and body and organism and medium (or man and Nature). Briefly speaking, Bateson taught us that mind is not 'in the head rather than out there in the world'[62]; it is more about ongoing bio-ecological patterns and relationships between organism and medium. For instance, as he declared in an audio conference, the skin of an organism is not an absolute boundary but an 'interface' which 'is concerned with transmission'.[63] The sensorial skin reveals *information* of the outer world. It also incorporates and exudes *matter and energy*.

However, this last point contains and illustrates a difficulty with Bateson's account which is particularly evident in his understanding of the environment, and this ultimately complicates the development of a coherent understanding of mind and its relation to the phenomenon of life. In his view, mind is uniquely about revealing, processing and connecting immaterial information coming from the environment—an interactive process that is continually triggered by what he called 'differences'[64]. In this way, he was able to transcend the traditional 'ecology of physics' by also describing an 'ecology of mind'. However, regardless of Bateson's claim that mind processes 'require collateral energy' and mass[65], he was unable to synthesise these two 'ecologies' – of mind and of physics – into a whole integral phenomenon. As Ingold points out, although Bateson was a great 'dismantler of oppositions' – between mind and body, organism and nature –, he could not overcome and clearly explain the most important oppositions of all: the dichotomy of form and structure (or substance, as referred to by Ingold). Ingold comments:

---

[61] Bateson, *Mind and Nature: A Necessary Unity*, 16.
[62] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 18.
[63] See Mary Catherin Bateson in Gregory Bateson and Rodney E. Donaldson, *A sacred Unity: Further Steps to an Ecology of Mind* (HarperCollins, 1991), 235-242; Noel G. Charlton, *Understanding Gregory Bateson: Mind, Beauty, and the Sacred Earth* (SUNY Press, 2008), 38.
[64] See Bateson, *Mind and Nature: A Necessary Unity*, 104-111.
[65] Ibid., 111-114.

> The ecosystem taken in its totality, was nevertheless envisaged as two faced. One face presents a field of matter and energy, the other presents a field of pattern and information; the first is all substance without form; the second is all form detached from substance. …Corresponding to this duality Bateson recognised two ecologies: an ecology of material and energy exchanges, and an ecology of ideas. And it was this second ecology that [Bateson] christened the "ecology of mind".[66]

In other words, despite the fact that Bateson's 'ecology of mind' was about the interconnection between 'Mind and Nature' – or mind and life –, he was not interested in developing a more complete theory of the living.[67] I believe this was unfortunate. His 'ecology of mind' – e.g. perception, knowledge and thought; information, communication and 'differences' – was not successfully and clearly linked with the phenomenon of life as a whole. That is, it was not clearly linked into a holistic interconnection of form, structure and process. He did not (or could not) synthesise a bio-cognitive explanation of 'life-process', or what Ingold calls, 'the ecology of life', and explain how 'the ecology of mind' is part and parcel of it. In contrast to Bateson, this is exactly what Maturana has done.

During the 1960s, Maturana was concerned with answering two scientific dilemmas. As he commented in 'Autopoiesis and Cognition', 'I entered a situation in which my academic life was divided, and I oriented myself in the search for the answers to two questions that seemed to lead in opposite directions, namely: '*What is the organization of the living*?' and '*What takes place in the phenomenon of perception*?'[68] Maturana's most important contribution was his later realization that his questions, independently studied from one another by a modern science influenced by Cartesian philosophy – that is, life in terms of body, matter and energy on the one hand, and perception in terms of mind and abstract ideas on the other – actually had a common answer. Maturana's realization of the interconnection of these phenomena can be summarized as follows: On the one hand, the phenomenon of mind – i.e. perception and cognition – had been usually understood by orthodox and modern science as the representation of an external reality

---

[66] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 16.
[67] Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 170.
[68] Maturana, in Humberto Maturana and Francisco J. Varela, *Autopoiesis and Cognition: The Realization of the Living* (Reidel, 1980), xii.

independent of the perceiver, and as an immaterial phenomenon—namely, what we have referred to as an 'ecology of ideas'. However, after several years of studying the perception of animals, Maturana discovered that the phenomenon of perception was actually determined by the physical *structure* of the organism's body and that it was organized in an internal and circular fashion or as a 'closed network of interactions'. Thus, instead of asking how an organism perceives something that occurs in an external and independent world 'out there', he realized that he had to ask about what happens *in* the organism when it perceives something in the environment. Briefly, Maturana not only realized that perception (or more broadly cognition) is an embodied event, as stated by the phenomenologists reviewed earlier, but he also, discovered the mechanism of that embodied phenomenon: its *organizationally closed dynamics*. So, understanding the organization of living systems – how they function – became essential to explaining the phenomenon of perception as an embodied and organizationally closed event.

On the other hand, in the mid 1960s, science could enumerate many biological characteristics of living beings and speak about reproduction, adaptation and evolution. It had a great deal of knowledge about physiological functioning of living beings – or what I have referred to as 'the ecology of energy and matter'. However, as Maturana commented, the question 'what [is] the invariant feature of living systems around which natural selection operates?' remained unanswered.[69] But Maturana's discovery that perception and cognition have an embodied 'circular organization' allowed him not only to start overcoming the modern explanation of the living in purely physiological terms, but most importantly, to realize that this 'circular organization', or what he later refined with the term 'autopoiesis', was actually the general form that embraces all living beings.

In summary therefore, by providing an answer to the organization and cognitive function of the living as one integral phenomenon, Maturana was uniting form and structure, the 'ecology of ideas' and the 'ecology of matter and energy', and overcoming the old Cartesian separation of mind and body. In this sense, Maturana's 'Autopoiesis and Cognition' is, I think, a scientific

[69] Maturana, in Ibid., xii-xiii.

cornerstone, a biological bedrock, for a truly holistic understanding of the 'ecology of life'. Let me therefore explain in more detail what Maturana (and Maturana and Varela) meant by the organization of living (autopoiesis) and the biology of cognition. In order to do this however, it is necessary to clarify first the meaning of a few essential systemic concepts: form, structure, and structural-determinism.

As I said before, modern science has firmly focused its attention on the study of physical phenomena such as energy and matter present in bodies, flows and cycles. Although this is necessary for the comprehension of life and life-like processes, the operative method of modern science has mainly been the dissection of wholes into isolated physical things and parts. The result of this has been a poor understanding of how these 'parts' are interconnected, how they constitute systemic wholes. That is, in its attempt to explain life and life-like phenomena, modern science has deeply underestimated the 'general patterns of organization' of life. However, as Capra comments, during the last century, the study of form (he uses 'organization') has become a central concept in a new understanding of life and life-like phenomena. This has been due to the emergence of systemic sciences. Gestalt psychology, mathematics of complexity, quantum physics, ecology, the systemic science of cognition and the biology of life in self-organizing terms, have all reacted to the reductive and mechanistic sciences of the nineteenth Century.[70] What all these branches of science have in common is their more holistic approach to the understanding of life and life-like phenomena. In more particular terms, they all propose, in their own languages and contexts, that the parts and the whole, or more accurately structure and form, are, systemically, inseparable. So, as Capra recognizes, a clear definition of both form and structure is needed in order to understand their complementarities in the phenomenon of life. He follows the definition proposed by Maturana and Varela, arguing that it is one of the clearest definitions presented in systemic sciences, as follows:

[70] See Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 17-50.

Form (or organization) is defined as 'those relations that must exist among the components of a system for it to be a member of a specific class.'[71] In other words, the form of any class identity or system – e.g. a computer, a bicycle or a living being – is the realization of certain kinds of relationships between a system's components that specify the essential character of any class identity and every system that is a member of that class. That is, for example, all the cars that have existed and will exist have the same organization – the same pattern of component's relationship – that allows them to be 'cars'. The organization of a system must be conserved and kept invariant all the time, so a system can maintain its particular existence as a 'member' of a particular class identity. That is, if the form of a system changes, then the system either disappears or becomes another thing. In other words, the conservation of the organization of a system is a constitutive condition of its existence.

Structure is defined as 'the components and relations that actually constitute a particular unity and make its organization real'. So, structure is the actual 'physical embodiment'[72] of the organization of a particular system. A particular composite unity conserves its class identity if its actual components and relations between them are realized within the limits determined by its organization which defines it as a particular kind (class identity).[73] Accordingly, every change in a system is a structural change – i.e. either a change of components or a change in their relations – that must maintain its organization invariant in order to conserve its existence as a unity.

Thus, form and structure in systemic terms in general and biological terms in particular, are not the same. Two (or more) systems can have the same organization but each of them has an

---

[71] Humberto Maturana and Francisco J. Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding* (New Science Library, 1987), 47. Merleau-Ponty 's definition of form is very similar to that given by Maturana and Varela. He States: 'there is form whenever the properties of a system are modified by every change brought about in a single one of its parts [i.e. structure] and, on the contrary, are conserved when they all change while maintaining the same relationship among themselves'. Mearleau-Ponty, quoted in Evan Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind* (Belknap Press of Harvard University Press, 2007), 67. Merleau-Ponty's vision of form is based on Gestalt Psychology. Gestlat psychologists, such as Wertheimer and Köhler, understood the notion of *Gestalt* as an organic and irreducible whole; that is, that the whole is greater that the simple sum of the parts. As phenomenology, Gestalt psychology can be seen as explicitly reacting to the mechanical and reductive method of modern science, and as a primal base for the emergence of systemic science and philosophy.

[72] Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 154.

[73] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 47.

embodied structure that actually constitutes each of them as a particular whole or unit. For example, the trees that I see through my window while I write this explanation have the same organization. As we will see, they are autopoietic (self-productive) systems that define their class identity as living beings. But each one has its own actual and particular structure (shape, colour, number of leaves, etc) that constitutes it as a particular and unique tree with its own life, its own history of structural changes (systemically referred to as the ontogeny of that specific tree). That is, the organization of each tree is constituted through the ongoing relationships of its actual components—its structure.

In this sense, it follows that the interconnection between form and structure is necessary for the concatenation of life phenomenon on earth. As Capra comments: 'I have come to believe that the key to a comprehensive theory of living systems lies in the synthesis of those two approaches – the study of pattern (or form, order, quality) and the study of structure (or substance. matter, quantity)'.[74]

The interconnection between form and structure allowed Maturana to define another important concept for the understanding of the praxis of living, that of 'structural determinism'. In an unpublished paper 'Ontology of Observing'[75] Maturana explains that, since the structure of any system (living and non-living) is its actual components and their interactions, the actual operation of the components of a system always determines the changes of the system at every instant. That is, the structure of the system determines *all* the changes that occur as part of its internal dynamics as well as *all* the changes that the system undergoes as a result of its interaction with the medium in which it exists. Even more, the structure of a system specifies the kind of interaction that the system can undergo. In other words, every change in a system is fully determined by its actual components and not by an external agent. An external agent (interactions with the medium) can only *trigger* structural changes in the system. Thus, structural determinism is a constitutive attribute of what all systems connote and 'nothing external to them can specify

---

[74] Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 154, also 171.
[75] Humberto Maturana, "Ontology of Observing: The Biological Foundations of Self-consciousness and the Physical Domain of Existence," *Unpublished Document, University of Chile, Santiago* (1986).

what happens in them; there are no instructive interactions for composite unities'[76]. Briefly, what is essential to emphasise at this point is that every change in a system (including living systems) is always a change of components that is determined by the actual components and relations that constitute the system at any given moment.[77]

Also, the notion of structural determinism is the epistemological basis of Maturana's work. It is the systemic explanation of the 'circularity of reflection' reviewed above. An important conclusion of Maturana is actually that 'everything that is said is said by someone'.[78] He explains that, even himself and therefore his definition of structural determinism, are in turn determined by his own particular structure, bio-cultural and historical existence – his ontogeny. That is, his vision of structural determinism is not another ontological assumption in terms of claiming an objective truth, but the results of the experience of an observer. In this sense, Maturana's vision can be implicitly presented as purely phenomenological, or as a systemic reaffirmation of this philosophy:

> I could only give up my views if the structural determinism to which all systems are subjects were no longer in force.
>
> The assumption that living systems [and all systems] are structure-determined systems is in no way related to an observer-independent reality; it is an abstraction resulting from the coherences that observers may experience... Whenever I discuss the structural determinism of

---

[76] Ibid., 8.

[77] As Paul Dell comments, Maturana's ontology of structural determinism not only explains the behaviour and dynamics of changes of inanimate and living systems but also 'it has retrieved the grand mechanistic universe that was envisioned by Newton—but with a difference. Maturana's determinism differs from that of Newton in a way that elegantly suits today's relativistic, Einsteinian world'. Dell explains that in the mechanistic Newtonian world, the behavior of objects are '*causally* determined' by forces and impacts. On the contrary, from Maturana's notion of structural determinism, forces and impacts cannot determine or specify structural changes. '[Forces and impacts] are merely the historical occasion for the system to continue its structure-determined behaviour' Therefore, from Maturana's point of view 'cause is a synonymous of instructive interaction' and, therefore, 'ontologically impossible'. Paul F. Dell, "Understanding Bateson and Maturana: Toward a Biological Foundation for the Social Sciences.," *Journal of Marital and Family Therapy* 11, no. 1 (1985): 7-8.

[78] or, "anything said is said by an observer", Humberto Maturana, "Biology of Cognition," in *Autopoiesis and Cognition: The Realization of the Living*, ed. Humberto Maturana and Francisco J Varela (Dordrecht: Reidel, 1980), 8.

> a system, I do not describe ontic or ontological facts or some truth, I merely present an abstraction from my experiences as an observer.[79]

Having clarified these systemic principles, I can now pay attention to the essence of Maturana's work. What is life? In school, we learnt that the minimum expression of life is the cell. We know, for instance, that every living organism is constituted by cells which reproduce through chemical reactions, and that DNA and RNA specify the way that amino acids are put together to form proteins.[80] However, this form of explaining life phenomenon is actually confusing. Its approach is one of developing lists of structural characteristics of the living, yet which, in principle, have no limit. We could be endlessly listing phenomena that take part in the chemistry, physiology and ecology of cells without really knowing when to finish. As described earlier, this is exactly what Cartesian science has done by disarticulating and analysing the molecule down to the last detail. No doubt this has had great value, but it is far from explaining the *systemic* character of life. Maturana's approach was different. He asked: 'What is the *organization* of the living?' Since organization is understood as those relations between the components of a system that allow us to identify it as a member of a specific class, Maturana proposed that explaining the organization of the living should therefore be 'necessary and sufficient'. Organization of the living, he thought, 'defines a class of unities that generates a phenomenology indistinguishable from the phenomenon proper to living systems'.[81] In other words, 'the attribute "living" ', Varela stated, 'in the foregoing description must address the *process* that allows such constitution, not the materialities [structure] that go into it, or an enumeration of properties'.[82]

As Maturana commented in 'From Being to Doing', in 1963, he was conversing with a microbiologist friend and he drew a diagram that finally gave him the answer that he had been seeking for years:

---

[79] Maturana and Poerksen, *From Being to Doing: The Origins of the Biology of Cognition*, 69.
[80] Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, 92.
[81] Humberto Maturana, "The Organization of the Living: A Theory of the Living Organization," *International Journal of Human-Computer Studies* 51 (Received in 1974 1999): 153.
[82] Francisco J Varela, "Autopoiesis and a Biology of Intentionality," in *Autopoiesis and Perception: A Workshop with ESPRIT BRA 3352*, ed. B. McMullin and N. Murphy (Dublin, 1992), 5.

> I drew a diagram and I said to my friend: "The DNA participates in the synthesis of the proteins, and the proteins participate as enzymes in the synthesis of DNA". My diagram had the form of a circle... I exclaimed: "my goodness, Guillermo, that is it! This circulatory of the process reveals the dynamics that makes living systems autonomous, bounded, and independent entities." I had found the conceptual basis of the phenomenon that was later termed *Autopoiesis*. From then on, I described living systems as circular systems.[83]

This discovery was also based on his experiments with the perception of animals. That is, since every perceptive act and every change in a biological system happens in a closed network of interacting components, then the systems, Maturana thought, should also have the capacity to self-generate their components. In a groundbreaking essay 'Biology of Cognition', Maturana used both the concept of 'circular organization' and 'self-reference' to explain the organization of the living as a closed, autonomous and bounded phenomenon. Later on, specifically in the essay 'De maquinas y Seres Vivos'[84] published with Francisco Varela in 1970, these concepts were refined and expressed formally and originally as 'autopoiesis'. Autopoiesis literally means *self-producing.* (*poiesis* comes from the Greek word *poiein* which means *to produce*, *to create*). Briefly therefore, autopoiesis characterizes the organization of living beings as kinds of systems that are self-organizing and 'continually self-producing'. The first definition of the organization of the living is of an 'autopoietic machine':

> An autopoietic machine is a machine organized (defined as a unity) as a network of processes of production (transformation and destruction) of components that produces the components which: (I) through their interactions and transformations continuously regenerate and realize the network of processes (relations) that produce them; and (II) constitute it (the machine) as a concrete unity in the space in which they (the components) exist by specifying the topological domain of its realization as such a network.[85]

An autopoietic system could be represented as in figure 1.1

---

[83] Maturana and Poerksen, *From Being to Doing: The Origins of the Biology of Cognition*, 97.
[84] Published later as 'Autopoiesis: The Organization of the Living', 1980
[85] Humberto Maturana and Francisco J. Varela, "Autopoiesis: The Organization of the Living," in *Autopoiesis and Cognition: The Realization of the Living* (Reidel, 1980), 79.

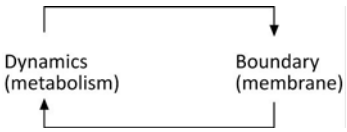

Figure 1.1 Representation of an Autopoietic System**.** [86] As Maturana and Varela comment, 'Note that these are not sequential processes, but two different aspects of a unitary phenomenon'.

Thus, an autopoietic 'machine' is actually a living system that is '*autonomous'*. Its organization is a *dynamic* and *closed* network of 'components' that produces itself. That is, the function of the interactive components (or 'metabolism') of the system is the transformation or production of more components which continuously and simultaneously form a 'boundary' that, not only is part of the productive network, but also allows the system to operate in a definite topology and ultimately to exist as a concrete composite '*unity'* in the medium. Every living being, in this sense, is unique and unrepeatable—that is, it has its own '*individuality*'. In more concrete terms, the initial explanations of autopoiesis were in unicellular terms—e.g. bacterial or prokaryotic cells—the simplest living system, according to Maturana and Varela. So, a cell is organizationally closed and self-productive because its dynamic metabolic network (i.e. molecules and chemical reactions) continually produces more molecules from which an organic 'membrane' continually emerges and is maintained. The cell's membrane, which is not just a boundary but part and parcel of the production of molecules, defines the operational extension of the network and its existence as a 'concrete' unity (i.e. a living being) in a major medium.[87] Later on, Maturana and Varela proposed that multi-cellular beings, such as plants, fungi, and animals, obviously, including human beings are also autopoietic systems of a higher order. The internal cells of a multi-cellular organism are strictly confined to the production of more cells which continually generate major organs and whole 'concrete' organisms.[88] Thus, Maturana and Varela concluded that 'a physical system if autopoietic, is living'…so, 'the notion of autopoiesis is

[86] Reproduced from Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 46.
[87] See Ibid., 44-47.
[88] Ibid., 87-97.

necessary and sufficient to characterize the organization of living systems'.[89] In Bateson's terms, we can say that autopoiesis, as the organization of living beings, is the general 'pattern that connects' all living beings.

The fact that living beings are organizationally closed, self-generating, autonomous unities, and have individuality, does not mean that they are isolated from the world, both thermodynamically and cognitively. Living beings are organizationally closed but thermodynamically open.[90] Energy and matter continually come in and out of the system. Simply speaking, every living being needs nutrients, such as food and oxygen, in order to maintain its autopoiesis. However, by being operationally closed and having a 'concrete' membrane (e.g. the skin of animals) means that a living being exists as a unity, and its internal dynamics (including the membrane – skin) determines how this energy and matter (e.g. nutrients) influences the system.

Also, what makes Maturana's (and Varela's) account totally revolutionary is that explaining the organization of the living as autopoietic, or organizationally closed, also implies an account of knowledge, that is, about how living systems relate to the mediums in which they exist, how they maintain their organization by cognitively existing in their ecological medium. If we think of living beings as organizationally closed in terms of total cognitive isolation from their medium, then we would only understand this theory in solipsistic terms. But this is counter experiential! We experience life as a full ecological phenomenon. In contrast, then, if we think of this theory more broadly, that is, that the organizationally closed existence of living beings determines *how* we relate to a medium, it can be said that Maturana (and later, with Varela) found and explained the *bio-cognitive* basis for a coherent understanding of the *ecology* of life, or 'organism *plus* environment', in Bateson's terms. In fact, this is exactly what Maturana did. He postulated that the *dynamic self-generating* organization of the living is indeed identical to the *ongoing cognitive processes* of a living organism. A cognitive act is in fact part and parcel of the organism's capacity to dynamically conserve its autopoiesis, or organization. As Maturana stated, 'a cognitive system is a system whose organization defines a domain of interactions in which it can

[89] Maturana and Varela, "Autopoiesis: The Organization of the Living," 82.
[90] Capra, *The Web of Life: A New Synthesis of Mind and Matter*.

act with relevance to the maintenance of itself, and the process of cognition is the actual (inductive) acting or behaving in this domain*. Living systems are cognitive systems, and living as a process is a process of cognition'*.[91] In Dell's words, Maturana's explanation of cognition 'includes the most fundamental "knowing" of all – "how to exist"'[92] To understand this more clearly, it is necessary therefore to explain *how* an organizationally closed system perceives and relates with its medium, how a living being *knows* its world:

Since autopoietic systems (i.e., every living being) are dynamically constituted by a circular and self-referred network of components (i.e. the structure of a living being), Maturana and Varela state that living systems are *structurally determined*. This means, as I have already reviewed, that all the continuous changes of a living system – as a consequence of either its internal dynamics or its interaction with the medium – are determined or specified by its actual components (or structure). This implies that any external agent which interacts with a living being only *triggers* structural changes in the system, but does not determine them.[93] Moreover, a 'living being only encounters the structural features of the medium that its own structure specifies'.[94] Therefore, since living systems are organizationally closed and structurally determined, autopoietic systems 'do not have inputs or outputs'[95]; their interaction with a medium are neither teleological nor determined by external 'information'. Briefly, *'instructive interactions are impossible'* in the cognitive operation of living beings[96]. However, the system can, and is, perturbed by independent or continuous 'events', but they, again, only *trigger* structural internal changes 'which compensate these perturbations'. With this, Maturana clarified the bio-cognitive mechanism of perception. In this sense, 'Perception' Maturana noticed 'should not be viewed as a grasping of an external reality, but rather as the *specification* of one'.[97] In other words, perception is not

---

[91] Maturana, "Biology of Cognition," 13; See also, Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 174.
[92] Dell, "Understanding Bateson and Maturana: Toward a Biological Foundation for the Social Sciences.," 13.
[93] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*.
[94] Humberto Maturana and Jorge Mpodozis, "The Origin of Species by Means of Natural Drift," *Revista Chilena de Historia Natural* 73, no. 2 (2000): 5.
[95] Maturana and Varela, "Autopoiesis: The Organization of the Living," 80, 81.
[96] Maturana and Poerksen, *From Being to Doing: The Origins of the Biology of Cognition*, 86.
[97] Maturana, in Maturana and Varela, *Autopoiesis and Cognition: The Realization of the Living*, xv-xvi.

about, as traditionally and orthodoxically thought, a passive representation of an external world 'out there', but rather '*the bringing forth of a world'*.[98] In this way, Maturana explained the biological and cognitive phenomenon of perception in terms that there is not a world independent of the structural existence of the perceiving being which is organizationally closed. This is the common ontology of perception of every living being, from a simple cell to a complex human being.

The process of perception, as specifying or bringing forth a world, is essentially part and parcel of the continuous and unavoidable interaction of the organism with a medium. As we have seen, our phenomenological existence is always within an environment of relationships. Living beings are essentially ecological. The way that this dynamic ecology occurs in bio-cognitive terms is explained by Maturana and Varela with the systemic term of 'structural coupling', i.e. a history of recurrent interaction in which organism and medium *mutually trigger structural changes*.[99]

Bringing forth a world through structural coupling, means that each living being brings up its own world which is specified by its own structure. In this sense, the world in which an organism lives – its own niche or medium, or what Maturana refers as the 'domain of existence of a being' – appears moment after moment in the realization of the living of the organism through continuous structural coupling. Therefore, the medium does not pre-exist the cognitive being, but continually arises and is specified through a dynamic process of interaction. Also, the ongoing process of structural coupling implies that every living being develops and maintains a unique, individual life, its own unique story.

In this way, structural coupling, as an ongoing 'compatibility of the organism with the environments' is described by Maturana and Varela as *adaptation.* In this vision, adaptation should no longer be understood anymore as the organism's capacity to exist in and passively react to a pre-existent medium that determines its existence and behaviour, but rather as an ongoing process of 'co-structural drift' or *co-existence*. Briefly, through ongoing co-existence,

---

[98] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 174.
[99] Ibid., 75.

that is, through structural coupling or adaptation, interactive beings not only generate and maintain *a* world, but also maintain their own existence. In summary, structural coupling or adaptation is the spontaneous, dynamic and congruent interaction between a living system and its medium, with the conservation of autopoiesis of the living system. Without the continuous structural coupling in which both the living system and its niche change together congruently, the living being would lose its adaptation, and it would die.

Here, then, the link between living and knowing becomes complete. It can now be said that living beings are 'homeostatic'[100] beings in constant bio-ecological change. They (1) dynamically self-generate and conserve their organization as autonomous unities (autopoiesis) and (2) maintain this organization in structural coupling with a medium which continuously triggers structural changes in the system. In this sense, Maturana stated that both (1) the conservation of autopoiesis (organization) and (2) the conservation of adaptation (structural coupling) are the 'necessary conditions of existence of living beings'.[101] If either organization or adaptation is not conserved, then 'the outcome for the composite unity is disintegration.'[102] That is, these two interrelated 'laws of conservation' are *vital* conditions that any living system must satisfy moment after moment. So, living beings' capacity to continually maintain their existence through ongoing structural change – i.e., through continual self-generation and structural coupling with a world – is the bio-cognitive phenomenon that explains Maturana's conclusion. Once again: *'living systems are cognitive systems, and living as a process is a process of cognition'*. In other words, the continuous conservation of autopoiesis and adaptation is a cognitive act; if there is cognition, there is life; if there is life, there is cognition. 'In a nutshell: to live is to know'[103]

[100] Maturana, "Biology of Cognition," 9.
[101] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 103.
[102] Maturana, in Maturana and Varela, *Autopoiesis and Cognition: The Realization of the Living*, xxi.
[103] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 174.

Cognition is '*the throbbing of all life'*[104]*, or in Capra's words, 'the breath of life'*.[105] Every living being, from the simplest cell to complex mammals, is a cognitive being while it is alive.[106]

In systemic terms, and fully influenced by Maturana, Capra synthesises that the phenomenon of living is the interconnection of form, structure and process. This synthesis of the living, Capra calls it 'the web of life'. He suggests that it overcomes (1) the traditional dichotomy of form and structure: autopoiesis is in itself a dynamic phenomenon in which structure and form are one indivisible phenomenon; and (2) the Cartesian dichotomy of process and form/structure or mind and matter: mind is in the embodiment of life; it is actually the process of living. [107]

Linking Basic Aspects of a New Synthesis of the Human Ecology of Living and the Ecology of Design

Armed with the philosophy of phenomenology and the cognitive science of the living, as understood by the authors previously reviewed, I can now return to our concern about the human *ecology of living.* The basis of a totally new understanding of the ecology of living – i.e. the organism-medium relationship – can be synthesised (or summarized) from the accounts reviewed and that significantly contrasts with the old and orthodox perspective of ecology in modern science. The fundamental difference between the old and the new perspectives is epistemological: a change of the understanding of life and cognition from the *static* to the *active*, 'from being to doing'[108], from self to 'self-in-process'[109] .

Modern science/philosophy, based on the division of subject and object, longs to find an absolute and steady basis of existence, the ultimate point where knowledge starts, the definitive bedrock of life. It does so because it assumes the existence of form (e.g. the living being, the object, the world, reality, etc) in fixed, objective and transcendental terms, totally independent from, and

---

[104] Ibid., 100.
[105] Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 257.
[106] This reaffirms Bateson's suggestion reviewed above that mind does not need complex nervous systems, or brains, or consciousness. These apparatus, are only part of the autopoiesis of certain living beings – e.g. in humans – allowing them to ultimately have much richer plastic behaviours, to expand their cognitive domain of actions.
[107] See, Capra, *The Web of Life: A New Synthesis of Mind and Matter*, 167.
[108] Maturana and Poerksen, *From Being to Doing: The Origins of the Biology of Cognition*.
[109] Guidano, *The Self in Process: Toward a Post-Rationalist Cognitive Therapy*.

prior to, the experiencing subject. For example, in modern and genetic biology, living beings are thought to just embody and live a pre-specified and programmed plan – i.e. an innate, genetic structure – 'given independently and in advance of its development in the world.'[110] And, in modern cognitive psychology, the world (or reality) is thought to consist of a 'mind-independent ordered set of objects'[111], so perception is thought to be just a passive representation of an objective and fixed reality 'out there'. Thus, the epistemological division of mind and form or subject and object, constructs an explanation of living beings and cognition that, strictly speaking is anti-ecological. Both subject and the world are defined prior to their mutual *relationship*, before the *experience* of a world. That is, since both subject and world are pre-specified and exist independently of each other, experience of and relationship with a world are, conceptually, secondary, even irrelevant. Both organism and world come to interact only after their formation.

In contrast, the new explorations have stepped back from the trap of a 'static' epistemology that the subject-object dichotomy carries with it. Their epistemological query is rather centred on the *process* from which, moment after moment, the form (e.g. the living being, the object, the world, reality, etc) is generated and conserved. Thus, if the form is the continuous result of an ongoing process, the question of an ultimate and transcendental knowledge becomes misplaced. Instead, a more appropriate epistemological enquiry should be based on the understanding of the ongoing 'phenomenon' wherein everything continually comes to be. And this is exactly what the reviewed accounts of phenomenology and bio-cognitive science have suggested. This epistemology has actually emerged with the comprehension that *life is a process*—namely, that process and form (or mind and world, or subject and object) are ineluctably interwoven and emerge together through the continuous praxis of living. Thus, nothing is steady in life; nothing is totally fixed or programmed before the realization of the living in itself; everything emerges and is sustained through the ongoing concatenation of the living. 'Life', in Ingold's words 'is active rather than reactive… is not the realization of pre-specified forms but the very process wherein forms are

---

[110] See Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 19, 383-385.
[111] Guidano, *The Self in Process: Toward a Post-Rationalist Cognitive Therapy*, 3.

generated and held in place'.[112] Briefly, through the process of living, the living being and the medium in which it exists are developed and conserved hand in hand, moment after moment. This is the cornerstone for a new ecology of the living. Neither the living being nor the world exists separately from the other. Actually, as we have seen, they form one indissoluble totality: *being-in-the-world.*[113] The 'lived-being' and the 'life-world' are inseparable in the 'life-process'—a process of embodied *experiencing* and *inhabiting* a world through *ongoing relationships.* As we have seen, this primal and necessary *ongoing ecology* is explained in cognitive terms as follows: Since the living being is organizationally closed, experiencing or perceiving anything in the world is an act of bringing it forth—the world is not separated from the specification of the embodied perceiver. In this sense, the ongoing process of inhabiting-a-world can be bio-cognitively explained by the notion of structural coupling—i.e. when an organism and medium *dynamically* and *coherently* interact or co-exist by mutually triggering structural changes, but always conserving their respective organizations, that is, autopoiesis, in the case of living beings.

The ecology of living therefore is necessary and universal to every living being, including us, human beings. We are embodied-ecological beings. In other words, being-in-the-world – the individual's embodied (or autopoietic) existence in a world through ongoing structural coupling – is our biological foundation; it is what makes us living beings part of the animal kingdom, of the phenomenon of life. I believe that this is exactly what Merleau-Ponty meant when he stated that perception is 'communication' or 'communion' through embodied action. In this communion, the world and I are dynamically interwoven. We form each other, congruently, harmoniously. We change together through coordinated interactions, as happened in my intimate and enlightening body-relationship with my mother during the earliest months of my life; or when I converse with

---

[112] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 19.

[113] Similarly, Ingold states: 'A properly ecological approach…is one that would take as its point of departure, the whole-organism-in-its-environment. In other words "organism plus environment" should denote not a compound of two things, but one indivisible totality'. (In Ibid.) However, Ingold's synthesis of the ecology of the living does not explain the bio-cognitive mechanism of this ongoing phenomenon. I think that, by associating the phenomenology of ecology with cognitive science, the bio-cognitive basis of the ecology of living can be explained within an epistemology in which process form and matter are dynamically interconnected.

my friends in the office or in the park; or when I dance with my wife; or when I play with my dog; or when I weekly walk through the Water of Leith in Edinburgh; or when I have a nap beneath an oak tree in the warmth of a summer afternoon. The world makes me, while I make the world; inner and outer become interwoven through the coordination of their spontaneous embodied-ecology. Thus, every movement or action, from the most intimate and personal to the most insignificant one, is part of my wandering with my world. It is a constitutive part of my animal-embodied process of experiencing a world in the flow of the present. In Abram's words, this communion is 'the ongoing interchange between my body and the entities that surround it…[it is] this improvised duet between my animal body and the fluid, breathing landscape that it inhabits'[114]

Human design is no exception to this ecology. Every act of design, good or bad, beautiful or ugly, useful or useless, is, biologically and phenomenologically, an experience, an action. It belongs to our spontaneous, embodied inhabitation of a world. It is intrinsically part and parcel of our ecology of living. So, on the one hand, design inevitably influences the quality of our lives—our autopoiesis and structural coupling. That is, it affects how we continuously create ourselves and the web of life in which we exist. On, the other hand, every action of design emerges from, or is determined by, this embodied and in-placed existence. Therefore, our structural coupling with our own worlds is paramount to comprehending and explaining the phenomenology and biology of human design. It also helps us to realize how important design is in our process of being coherently adapted to our mediums.

Here-in lies the power of design. It is not bio-ecologically passive, but active. So, it can either contribute to the maintenance of our being-in-the-world, or diminish it. It can help us to uphold a spontaneous and coordinated dance with a world, or in Arne Naess's words, to *alienate* us from it. Because individual and world are indivisible, alienation-design not only makes us foreign to nature, but to ourselves too. In this sense, it can be said that, although every design is creative or

[114] Abram, *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*, 52.

active, only when it contributes to maintaining our bio-ecological existence – our autopoiesis and structural coupling –, is it, biologically, intelligent or cognitive.

Language, Eco-cultural Existence, and Design

But how does design operate in the domain of structural coupling? The fundamental domain or way in which the action of design takes place in our spontaneous bio-cognitive existence is through a further, more complex, level of cognition that is a fundamental aspect to our humanness—mainly, our *eco-cultural existence in language*. Basically, the phenomenon of 'eco-culture' partly implies that humans' ecology of living is intersubjective—that is, that the knowledge of oneself and one's world is always in connection to other human and non-human beings.[115] The phenomenon of 'language' partly implies that humans have rational and self-conscious cognitive processes—namely, that we are able to develop a sense of self, both as a subject ('I') and as an object ('me')'. Through language we are able to rationally explain, or to reconfigure, our experience of living in the present, to 'see' ours and other's experiences from the perspective of an observer.[116]

I believe that language and eco-culture are fundamental to design. In basic terms, designing is developed through eco-social interactions and rational or appraisal observation, reflection and explanation of our realities. Yet, I also believe that *how* we understand our cultural and languaging existence deeply influences the *way* we design, thereby affecting the quality of our lives in potentially different ways. If, on the one hand, through eco-cultural interactions, we assume that culture and language are constituents of a relational and cognitive domain that essentially transcends and separates us from our embodied-ecology, from the rest of nature, then we would probably practice 'alienation'-design. If, on the other hand, through eco-cultural interactions we explain the phenomenon of culture and language as a relational and cognitive domain that both emerges from and operates through our embodied-ecological experiences, then we would probably be quite aware that design actions should be focused on facilitating the

---

[115] Guidano, *The Self in Process: Toward a Post-Rationalist Cognitive Therapy*, 10.
[116] Ibid., 10-15.

conservation of our embodied-ecology. Based on both what we have already seen and on the following explanation, I think that language, eco-culture and design are only coherent in relational and cognitive terms when related to, and explained from, our embodied-ecological existence.

From evolutionary theories and archaeological and anthropological sciences, we have learnt that, between 20 and 10 million years ago, the animal class *apes*, came out of the trees and began to spread around the sub-tropical and tropical Eurasian region. In the course of millions of years of drifting, several 'families', or paths of structural coupling (phylogenetic drift)[117] emerged and began to be conserved, including among others, the gibbon, the orangutan, the gorilla, the chimpanzee, and the Homo. Every one had its own particular form of living – its own way to conserve its autopoiesis and adaptation. Yet all of them shared (and keep sharing) their, let us say, *ape.* Around 7 to 5 million years ago, the *genus* Homo began its own drifting. The *Autralopithecus*, with his bipedal and upright walking; the *Homo habilis*, with its manufactured tools of stone and bones; the *Homo erectus,* with its great capacity to migrate; The *Homo sapiens,* with its magic-religious rituals; every single individual Homo has, in some way or another, influenced the dynamic homeostasis of this particular mode of animal existence. We, *Homo sapiens-sapiens*, are part and parcel of this millenarian embodied ecology embedded in each one of our ancestors. Literally, we own our human mode of living to them.

Thus, one of the most significant aspects that we have inherited from our *ape* is sociability. All apes, and many other kinds of animals, are social beings. The 'social' phenomenon is, bio-cognitively, a spontaneous and immediate phenomenon which is part of embodied-ecological events. Recognizing this, Maturana and Varela refer to the social phenomenon as 'coordination of actions', and therefore, state that it is part of the domain of structural coupling in the socially interactive animals.[118] A socially co-ordinated action, for instance, occurs when the members of a pack of wolves are hunting a young bear. From the standpoint of an observer, it seems that every

---

[117] See Maturana and Mpodozis, "The Origin of Species by Means of Natural Drift." I briefly examine the understanding of evolution as 'natural drift' developed by Maturana et al. in Chapter 3

[118] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 206-207.

embodied movement has been 'carefully planned'; each wolf has a particular 'job' that is part of a complex coordinated and consensual system, a 'group technique' that allows them to finally hunt bigger animals in extremely difficult conditions. In this sense, it can be said that this ecological coordination in structural coupling is, from the perspective of an external observer, a 'linguistic' phenomenon.[119] This, Maturana and Varela explain, was the basis for the emergence of a new domain of structural coupling which gave to the family Homo its most distinctive characteristic – language. Similarly, Merleau-Ponty had earlier proposed in a chapter called 'The Body as Expression, and Speech', that language was rooted in a deeply embodied phenomenon. Through body gestures and dispositions, the individual 'communicates' its feelings and co-ordinately responds to communicative affections expressed by other beings. This embodied and communicative gestures form the basis of words and speech, he asserted.[120] As Abram comments on Merleau-Ponty's vision of language, ' the disclosure that preverbal perception is already an exchange, and the recognition that this exchange has its own coherence and articulation, together suggested that perception, this ongoing reciprocity, is the very soil and support of that more conscious exchange we call language'.[121]

In this sense, the proposition by Maturana and Varela is that 'this more conscious exchange we call language' emerged when these embodied-ecological coordination of actions actually started to be consensually coordinated.[122] That is, when relational experiences are reordered through explanations. For example, imagine now that the pack of wolves hunting an animal were not wolves but Homo individuals. If, during their consensual coordination (linguistic interactions) of hunting, they suddenly start to consensually coordinate their coordinated actions through different body movements, vocal sounds and facial expressions, we could say then that they are languaging—they are consensually coordinating their consensual coordination of hunting a big animal. This emerged through continuous structural coupling over several millions of years. As William Foley explains in an anthropological study of linguistics, languaging coordination first

---

[119] Ibid., 207.
[120] Merleau-Ponty, *Phenomenology of Perception*, 184.
[121] Abram, *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*, 74.
[122] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 210.

emerged as proto-language (in *Homo habilis*); then it became more and more recurrent and complex (in *Homo erectus and Homo sapiens*), 'ending' in actual human beings who 'are now thoroughly language-constituted beings' [123] That is, we, human beings exist in language. In fact, it is our mode of co-existence in the domain of structural coupling. In other words, 'language is the human cognitive domain'.[124]

This explanation seems to discredit the mainstream view of language as essentially an abstract and bodiless system of words or signs correlated in grammatical order that both explains and represents a supposed objective world 'out there'. In this view, language appears as a human tool isolated from and hierarchically over the body and nature. In contrast, although as a coordination of coordination of ecological actions language appears as a distinctively human phenomenon, it is not a separation from other 'linguistic' or 'communicative' interactions such as the coordination of wolves hunting a bear, or the duet singing of mating birds, or the social trudge of elephants looking for water in the African savannah. Again, language emerged *from and through* this animal (particularly the apes) communication. In this sense, using the phenomenon of language and anything that makes us humans is insufficient reason to separate us from our embodied-ecological existence. To posit that human language is an abstract and disembodied event is a cornerstone for the mind-body separation, and therefore is essentially anti-ecological, and phenomenologically and bio-cognitively misplaced.

So, the embodied–ecological explanation of language also challenges the mainstream understanding of culture. In modern epistemology, culture has been commonly conceived as a languaging system of disembodied and unplaced ideals and meaning, so it has also become isolated from nature—i.e. the culture-nature dichotomy. In this view neither the natural world nor the body are necessary to generate the abstract, social network of meaning in which humans co-exist. Furthermore, the so called 'cultural man' has repeatedly used his 'abstract', 'pre-

---

[123] See more details in William A. Foley, *Anthropological Linguistics: an Introduction* (Wiley-Blackwell, 1997), 63-74.
[124] Maturana, "Ontology of Observing: The Biological Foundations of Self-consciousness and the Physical Domain of Existence," 25.

established', and always 'objective' ideals and meanings to subordinate the natural world to his will.

In contrast, explaining language as an embodied-ecological phenomenon helps us to understand first, that culture is part and parcel of our continuous and embodied structural coupling (or phenomenologically, being-in-the-world); and second, or as a consequence of this, that culture, 'our social home'[125], is ineluctably linked with other non-human living beings. I think that neither cultural sociology, which has traditionally studied inter-human interactions, nor human ecology, which has traditionally studied the relationship of human beings with their non-human natural world, have holistically tackled this issue. This is therefore why I propose that the human individual, or more precisely the being-in-the-world, is not cultural or social but necessarily *eco-cultural*, or more broadly, *eco-social*. That is, the eco-cultural individual exists in a whole and indivisible network of ongoing relationships constituted by his languaging interactions with other human beings, other living beings and ecological flows and cycles. This is the essence, the ontology, of our intersubjective existence. Furthermore, this helps us to generate the following explanation of eco-cultural dynamics which, as a network of eco-cultural relationships, is (1) generated through the ongoing interaction of the human and non-human beings that participate in it; and (2), since it is the medium in which they co-exist, it deeply 'influences' (bio-cognitively, triggers) the way that every participant lives its life.[126] Thus, there is a circular phenomenon: through ongoing eco-cultural interaction, we create and conserve unique eco-cultural worlds, which, simultaneously, 'shapes' or 'makes' our unique individualities, our particular modes or manners of living. I will come back to this point in greater depth in Chapter 2.

---

[125] Nicholsen, *The Love of Nature and the End of the World: The Unspoken Dimensions of Environmental Concern*, 28.

[126] My vision of the organization of our eco-cultural existence is based on Maturana's definition of social system: 'a collection of interacting living systems that, in the realization of their autopoiesis through the actual operation of their properties as autopoietic unities, constitute a system that, as a network of interactions and relations, operates with respect to them as a medium in which they realize their autopoiesis while integrating it'. For more details, see Humberto Maturana, "Man and Society," in *Autopoiesis, Communication, and Society: The Theory of Autopoietic Systems in the Social Sciences* (Campus, 1980), 12.

Understanding language as the human bio-cognitive domain 'hinged' through eco-cultural networks of interaction is fundamental to a more coherent view of the action of design. Let me detail some important points in this respect:

Design takes place in language. Design is a human activity that, among other things, implies conscious intention, critical reflection and explanation of our experiences and realities, and the planning of forms in advance – these are cognitive processes which seem to be *fully* developed in language and self-consciousness. As such, design is a distinctively human activity. Yet, the action or capacity of design does not mean human exile from Nature or the animal domain. As language, design is only a further level of complexification of our 'animal' embodied-ecological existence or our structural coupling with our mediums. It is, as we have seen, 'intrinsically part and parcel of our ecology of living'.

At this level of cognitive complexity, we can then ask, what does design do?

Design is a particular form of languaging about creating eco-cultural tools that facilitate (or 'coordinate') other eco-cultural coordinated activities. By 'eco-cultural tools' I do not mean, as modern epistemology assumes, that, through design, we create static and consummated objects (such as tables, cars, or houses), as if they were static artefacts in themselves, separated from the flow of being-in-the-world. To say that design belongs to a human abstract and bodiless procedure that creates artificial and static things/worlds positioned over a natural one is, in phenomenological and bio-cognitive terms, inappropriate. *We do not design without our embodiness but through it. We do not design over a natural world, but within it*. Thus, by 'eco-cultural tools' I mean that, through design processes, we rather create ongoing platforms that, not only are part of our process of living, but also facilitate that process of living. Briefly, through design we do not create static objects, but facilitate a mode of living.

Design is an eco-cultural maker and is eco-culturally shaped. Design as an eco-cultural facilitator, also dismisses the conventional vision that design in general, and the generation of tools in particular, is only a functional or practical action – i.e. that design generates *technologies*. Nor, through technology, do we create a built environment separated from and positioned over a

natural world. The activity of design is much more than that: it is an eco-cultural phenomenon. When we design we create and participate in one whole and integral world, a 'life-world', an eco-cultural world. On the one hand, every action of design, without exception, influences the eco-cultural network in which it takes place, not only in the shape of major eco-systems, cities, houses, and artefacts, but also, and most importantly, on the way that the inhabitants of the systems live. Design affects the development and conservation of an eco-cultural identity. It has a direct impact on how the members of a system relate to each other, on how they see and treat other living beings, on how they take care of themselves and their mediums, and on how they respond to existential and spiritual questions, etc. Briefly, design participates in the generation of particular and unique ways of understanding and practicing the phenomenon of being-in-the-world. On the other hand, the ongoing network of eco-cultural relationships also critically shapes or defines a mode of designing. Design is an eco-cultural manifestation. What the designer creates and how he creates it is inevitably affected by his inhabitation of a particular eco-culture, by predominant worldviews and epistemologies. Our particular eco-culture is the system that sustains us. It indicates a particular manner of seeing, and of living. It is 'tradition', that fundamental background that allows us to be-in-the-world. In this sense, designing tends to be a conservative action that contributes to maintaining a particular eco-cultural form. But this tradition is not static. Our eco-cultural domains, as we have seen, are very much alive; they are on the move. As a systemic phenomenon, it is a homeostasis-in-change. That is, eco-culture is not only the basis for conserving a certain pattern, an identity or habit, but also the 'background' for change. As Nicholsen states, 'emergence is an unfolding against the background of what has come before, a background that has stability and a rhythmic pattern'[127]. Design, as a creative activity, belongs to that emergent property of our eco-cultures, and therefore it is an important source of change. The main source of change is the designer's capacity to reflect upon his patterns of experiences or behaviours—an action that happens due to his existence in language.

---

[127] Nicholsen, *The Love of Nature and the End of the World: The Unspoken Dimensions of Environmental Concern*, 85.

Let me illustrate all these interconnected ideas about designing with an example. A basic element of our animal existence is physical movement. We express behaviour and communicate through movement. We inhabit our eco-cultural ecosystems through movement. Thus, over millions of years of *homo* inhabiting a world, every eco-culture has conceived and solved the issue of movement in distinct ways. The most dominant form of movement in our Western-European world is the motor vehicle—particularly, the car. In our society cars are understood as static and artificial objects. The modern designer creates a car believing that it is an object in itself, a cultural/artificial product isolated from the natural world – basically he creates an object in his (certainly 'disembodied' and 'unplaced') mind and then he 'deposits' it over the land. When we design a car, I claim, we do not design a car, as a finished artefact, nor do we design a technological product. This modern belief hides what design truly does. When we design a car, we facilitate and encourage a particular mode of conceiving human movement, which contributes to the generation of a particular eco-culture. The frenetic and energetic industry of cars is both the result and creation of a human conception of mobility based on individualism, velocity, linearity, and functionality. It not only gives a distinct form to cities, towns and country side, but most dramatically, it generates a mode of inhabiting these systems. We do not wander in the countryside, we go over it, from A to B, and from B to C and then probably back to A; we do not enjoy the freshness of the air, but pollute it. We do not enjoy the company of the other as in walking, but we imprison ourselves in individualistic devices, etc. By designing a car we are ultimately facilitating this form of moving and living. The most basic question of design therefore becomes clear: which eco-cultural world do we want to facilitate through the process of designing? This is an ethical question.

A Note on the Concept of Nature

Modern science, operating under the epistemology of human-nature dichotomy, assumes that nature is an external and static object, thereby analysable in its ultimate and transcendental essence. That is, the modern scientist, in his belief that his vision is detached from his being-in-the-world – that he has a sort of God's eye – generates an explanation of nature that transcends the human experience; nature is totally depersonalised. This vision of nature could be regarded as

'naturalism'. Naturalism is defined by the Oxford English Dictionary as (1)'action arising from, or based on, natural instincts, without spiritual guidance; (2) a view of the world, and of man's relation to it, in which only the operation of natural (as opposed to super natural or spiritual) laws and forces is admitted or assumed'[128]. That is, the modern scientific notion of nature is not only depersonalized but also, *despiritualized*. Nature, for modern science, is just a mechanical phenomenon. As Milton explains, this is a critical point that opposes modern science and religion. While science sees nature as an 'impersonal' mechanism, religion assumes a 'personal' understanding of it—that nature is, in a way, caused by intentional agents.[129] I am neither interested in making an analytical comparison between science and religion, nor in exclusively attaching the notion of nature to either one or the other. Rather I am more interested in relating the notion of nature with the import of personal experience and spirituality.

Our review of some phenomenological and bio-cognitive explanations of the phenomenon of perception has helped us not only to overcome the Cartesian Mind-body dichotomy, but also the culture-nature dichotomy. We do not inhabit a built medium over a natural one. Rather we inhabit a whole medium that emerges, moment after moment through the process of living. In this sense, this new 'science of experience', as it was called by Husserl, gives us a foundation for a more coherent epistemology that assumes our existence not as entities outside nature but *within* it. Nature is a process. It continuously emerges through our ecological – i.e., relational or intersubjective – process of living. Thus, the explanation of it is ineluctably attached to a personal experience. In this sense, I assume that every human being has his own, personal vision of nature, and therefore gives to it a certain degree of significance that is coherent to his vision. Even more, since every explanation of nature presupposes the embodied-ecological (or personal) inhabitation of it, every one is equally valid. No explanation of nature can claim transcendental objectivity.

Even more, this leaves room to assume that nature is not only the medium, the niche or nest, which we inhabit, but also us, individuals. As part of the emergent process from which nature emerges continuously, nature is inside us. In this sense, nature may become a spiritual or even

---

[128] *The Oxford English Dictionary*, 2nd ed. (Oxford: Clarendon, 1989), vol. X.
[129] Kay Milton, *Loving Nature: Towards an Ecology of Emotion* (Routledge, 2002), 19-21.

sacred phenomenon for many people, i.e. nature becomes Nature with a capital 'N'. In Chapter 5, I will explore this sacredness of nature, this inside-outside dynamics, with the notion of *homing*. I will argue that it is when we feel that the biosphere in which we exist is not only the place in which we make our home but also it is part of our home that it becomes sacred.

Towards an Ecology of Loving and Homing—the Sentient Essence of Humanness and the Practice of Ecological Design

Realizing that the activity of design is part and parcel of our embodied-ecological existence, of our eco-cultural worlds, is a first step to understanding the notion of 'ecological design'. Strictly speaking, every design is ecological—every human action inevitably is based on and influences an eco-cultural domain—or biologically, our continuous structural coupling. However, this is not only what I want to understand by a truly ecological design. Ecological design is more than this. It is a way of living that is *aware* of this fundamental character of life—i.e. being-in-the-world or structurally coupled with a world – and acts in concordance with it.

When does this awareness truly emerge and when is it put into practice? This is the main question that I will explore in the following chapters. Very briefly, I shall argue and state that ecological design, as part and parcel of a particular mode of living, emerges and is conserved through the interaction of the following phenomena: (a) when we design *in love,* and (b) when we realize that the eco-cultural medium that we inhabit is our *home.* In Sections II and III of this thesis – i.e. 'Steps to an Ecology of Loving and 'Steps to an Ecology of Homing' – I attend to these *fundamental* aspects of human ecology in general, and the practice of ecological design in particular.

Before doing so however, in Chapter 2, I will consider another important aspect of human cognition and ecology—emotioning. We have seen that, in the epistemological re-union of mind and body, our languaging existence, which allows us, among other things, to explain and reflect upon our experiencing, is an embodied-ecological phenomenon. Design I have asserted, is a form of language and therefore it involves rational and self-conscious thinking. However, neither the human cognitive process in general, nor the process of designing in particular involve only

conscious and un-conscious appraisals. Rather they seem to be deeply interwoven with our embodied emotions and feelings—our sentiments. Furthermore, examining the work of several scientists of emotions, I shall argue that emotions actually command human actions. It is in this interweaving of languaging and emotioning, that, and following Maturana, I will refer to 'conversing', when we may (1) have a more complete synthesis of the human action of designing and (2) understand the emotional basis of the phenomenon of loving and homing, and therefore that of ecological design.

Chapter 2

A Bio-Eco-Cultural Synthesis of Human Emotions: towards a new Epistemology of Design

Reason versus Emotion: The Modern View

A few summers ago, I had the privilege of observing two children playing in a muddy plot next to the river of the valley they inhabited. The game consisted of creating a city of mud which was itself 'urbanized' around a river created by them with a hosepipe which was in turn connected to the real river. For several days, and by personifying many of the supposed inhabitants of this 'mud-city' such as mothers, businessmen, doctors, children, dogs, the river, ants, and so on, these two children invented a complex story about the creation of and the everyday-life in the 'mud-city'. They gave shape to the geography of the valley made up of several hills, mounds, and lakes. Then they planted trees, defined zones for agriculture and erected buildings. They urbanized a city centre and a suburb with several squares and streets, and created cars, buses, a petrol station, a shopping centre, a hospital and a jail. Briefly, they were designing a mini world quite similar to the one they inhabited. But, what was fascinating to observe was how the different activities, relationships, challenges and conflicts that the characters of this city confronted, were in turn highly conditioned by, or were a direct reflection of, different emotions, moods and social and ecological conditions experienced by these two children. Creating the city continuously triggered the most passionate dialogues and discussions between the children. Most of the time, the children were happily playing and spontaneously enjoying their present without any hurry, thereby constituting a peaceful way of living between the characters of the story. But sometimes the children were also, angry, surprised, awed, or sad, thereby generating immediate effects on the way the characters created their city. Also, playing during the fresh morning was not the same as during the hot hours after lunch, or when, time to time, some adults came to participate in the game. That is, the physical shape and the 'social' and 'ecological' dynamics of

the ‘mud-city’ were totally aligned to the embodied and relational conditions experienced by the children. After a few days however, the city was seriously damaged during a discussion and a fight between the two children, and the game came to an end. A few hours after the ‘catastrophic’ discussion, one of the adults who was present at that time approached the children and said to them: ‘come on boys, don’t be irrational and control your feelings! Go back and keep playing’. Eventually, the children went back to the river and continued with the design of their city.

The intervention of this adult in the children’s game epitomizes an essential aspect of our Western culture and one which has greatly influenced the conception we have of the practice of design. We are part of a culture that commonly assumes that the basis of our humanness is our rational existence, which develops and is improved as we grow up, and that our emotions and feelings are essentially ‘irrational’ and recurrently lead us to make mistakes, such as the fight between the children. Therefore, it is believed that emotions must be controlled by logical thinking. Emotions, it is assumed, belong to immature stages such as childhood, animalness and wilderness. By contrast, fully rational thought, as philosophy and science, once separated from and positioned over emotions, it is assumed to be a sign of adultness and progress. As such, mechanically and unquestionably, implicitly and explicitly, and day after day, we encourage our children to underestimate their emotions and become fully rational beings—to pass from the domain of immature, unreal playing to mature, real life design.

So, rather than keep learning how to listen, feel, understand and deal with the emotions, as these children naturally and spontaneously did in the act of playing and designing their ‘mud-city’, we have assumed that, in order to design good, harmonic, tidy and organized cities, we have to apply purely rational thinking, which, in principle, implies that we dominate and control our emotions. Design therefore has been understood as a process of technological invention, as the logical application of scientific knowledge for practical purposes.

My view is that this form of living and designing, which is blind to our emotions, is a central reason of our incapability to (1) understand the roots of our social and ecological crises and (2) to design more harmonious and sustainable systems. In contrast to the modern attitude, I think we

have a lot to learn from the socio-ecological dynamics of these children where, rather than neglecting their emotions, they were spontaneously learning that emotions are an essential and unavoidable aspect of our humanness, our intelligence, and therefore essential to in any design process. My main purpose in this chapter therefore is to re-understand the vital importance that emotions have in our lives and in the practice of design. A first step is that the separation of reason and emotion is misplaced. In contrast they are part and parcel of a whole—human intelligence.

In principle, this task does not appear as an easy one. The assumption that reason makes us humans and separates us from the animal emotions is a central pillar of Western philosophy. With this I do not mean however that Western philosophy has altogether ignored the study of emotions. The idea of emotion has been implicit in the study of notions such as 'spirit' and 'appetite' in Plato, or 'desire' and 'sin' in middle age Christianity, or 'passion' in Descartes, Hume, Kant and their followers. It has also been present in philosophical and psychological studies of some particular emotions, such as, 'love' (including *eros, philia* and *agape*), 'anger', 'fear', 'joy' and indeed all the other emotions that we would treat today as basic. Yet, most of the philosophical enquiry in Western culture, and by extension the methodological focus towards the understanding of emotions, has been centred on the study of the intellect, usually assumed to be the opposite of emotions. As Kenny comments,

> From the Renaissance, until quite recent times, the major interest of philosophers has been epistemology. Research has been centred on the contemplative rather than the active, on the intellectual rather than the emotional and voluntary aspects of human life. Knowledge rather than action, belief rather than emotion, the intellect rather than the will have been the central topics of philosophical concern.[1]

In this context, emotion has been historically classified as 'bestial', 'irrational' or 'sinful', usually interrupting the 'appropriate' or 'correct' procedure of rational thinking. As the philosopher Robert Solomon comments,

[1] Anthony John Patrick Kenny, *Action, Emotion and Will*, Second Edition. (Routledge, 2003), 1.

> 'One of the most enduring metaphors of reason and emotion has been the metaphor of master and slave, with the wisdom of reason firmly in control and the dangerous impulses of emotion safely suppressed, channeled or (ideally) in harmony with reason'[2]

This metaphor, he explains, not only suggests that emotion is 'inferior', 'more bestial', and less intelligent' than reason, so that it 'must be controlled', but it also implies a clear distinction between them 'as if we were dealing with two different natural kinds'.[3] This cultural perspective created, not only a dichotomy of 'good' reason and 'bad' emotion, but also, I think, it is one of the epistemological roots of the mind-body and human-nature dichotomies.

Descartes epistemological division of soul and body, as briefly reviewed in Chapter 1, is a clear example of Western subjugation and distrust of emotions. Our animal or bestial inclination is controlled, Descartes stated, by the 'soul', and argued that the correct description and understanding of the world and its inhabitation is 'distinctively rational and conceptual; the sensible world is a vague and confused something'[4] Freeman explains Descartes' vision, as follows:

> The animal machine in man was guided by the soul as his 'pilot', which sought knowledge through reasoning about the passive imprints of sensations, in order to arrive at absolute mathematical truth. Fantasy, intention and emotion were dismissed along with imagination as being nonmathematical and therefore unscientific.[5]

The modern negation of emotions has not been a total consensus however. For example, David Hume, only a hundred years after Descartes, recognized that the separation of reason and the 'passions' was far from appropriate. After a deep study of human reasoning, Hume stated that 'reason is and ought only to be the slave of the passions, and can never pretend to any other office than to serve and obey them'.[6] More recently phenomenological and gestalt philosophy have also reconsidered the importance of the body and that of the emotions for human survival.

---

[2] Robert C. Solomon, "The Philosophy of Emotions," in *Handbook of Emotions*, ed. Michael Lewis and Jeannette M. Haviland-Jones (Guilford Press, 2000), 3.
[3] Ibid.
[4] Descartes, in Edwin Arthur Burtt, *The Metaphysical Foundations of Modern Science* (Routledge, 2000), 117.
[5] Walter Freeman, "Emotion is Essential to all Intentional Behaviors," in *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, ed. Marc D. Lewis and Isabela Granic (Cambridge University Press, 2000), 211.
[6] David Hume, *A Treatise of Human Nature* (NuVision Publications, LLC, 2008), 297.

However, most of modern humanities and science was based on the Cartesian dualism, and to some extent, it is still present in some scientific, humanistic and popular epistemologies. This has had severe consequences both in socio-political and scientific domains.

Claiming access to objective and transcendental truths by means of logical philosophy and science has been a major political and religious strategy to dominate the rest of Nature and other human beings who were considered less intelligent and emotionally irrational. There are many examples. Among them is Aristotle's aristocratic politics and his approval of slavery, or the Christian lists of negative 'desires' considered 'sins' during the middle ages.[7] In modern science, for example, the anthropologist Maruška Svašek argues that these ideals were also shaped 'by evolutionist theories of racial progression'. She recalls the words of the anthropologist Taylor in 1881who referred to the indigenous form of thinking as "loose and illogical" and argued that evolution had liberated civilized man from the oppressive laws of natural instincts, allowing 'the superior intellect of the progressive race [to] raise their nations to the height of culture''[8]. She also argued that, European colonialism was justified because of the belief that the New World and its inhabitants were just 'wild passionate savages'. From this standpoint, 'civilized humans even had the *moral obligation* to conquer and convert the natives'.[9]

In a scientific domain, the Galilean-Newtonian approach to understanding reality has greatly shaped the understanding of human intelligence as logical and rational dynamics that commands the emotions. As examined in Chapter 1, modern epistemology understands perception as a representation of an external world that can be objectively disclosed through linear inputs into the mind. From this epistemology, emotion has usually played a secondary role and is usually thought of as constrained and defined by reason. For example, as the emotion theorist Marc Lewis points out, 'much of the emotion theory derives from cognitive psychology, where linear (i.e., one way, step-by-step and incremental) information processing has been the dominant

[7] Solomon, "The Philosophy of Emotions."
[8] Maruška Svašek, "Introduction: Emotions in Anthropology," in *Mixed Emotions: Anthropological Studies of Feeling*, ed. Kay Milton and Maruška Svašek (Berg, 2005), 4.
[9] Ibid.

metaphor for decades'.[10] This is clear in the appraisal theory of emotion. The main focus of this theory is that appraisal processes (i.e., cognitive domains such as perception, evaluation, reflection, memory, etc) 'give rise to an emotional response'. Emotion therefore, is treated as an effect or reflection of a linear process mainly constricted by rational aspects of the mind.[11]

However, since the second half of the twentieth century, there has been a radical change in the approach to cognition and emotion. As opposed to Newtonian linear-causal dynamics, a nonlinear dynamics has been developed in many scientific fields (commonly known as dynamic system theory). Particularly important in non-linear dynamic systems is the emergence of self-organizing processes within the system (usually called self-organizing systems) and there are new 'models' that explain emotion from this perspective and therefore re-consider the tremendous importance of emotion in human cognition.

The most important point is that this new perspective, as part of a major epistemological change in the understanding of the phenomenon of life and humanity, is contributing significantly to overcoming the almost endless 'master-slave' metaphor of reason controlling emotion (or mind controlling body), and therefore, constructing the basis for a new social and environmental ethics. There are a proliferation of visions that are now starting to systemically raise the following issues: the relationship (and merging) between reason and emotion; the fundamental role of emotion in cognitive processes and human behaviour; the mechanism of how the medium influences emotional development; the overcoming of the understanding of cognition and emotion as static phenomena towards the comprehension of their dynamic organization; the relationship between self-organizing emotion and its coupling with the environment; the social and ecological development of emotion, and the agency of emotion in the creation of eco-social mediums.

---

[10] Marc D. Lewis and Isabela Granic, "Introduction: a New Approach to Study of Emotional Development," in *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, ed. Marc D. Lewis and Isabela Granic (Cambridge University Press, 2000), 3.
[11] Marc D. Lewis, "Bridging Emotion Theory and Neurobiology Through Dynamic Systems Modeling," *Behavioral and Brain Sciences* 28, no. 2 (2005): 169-194.

Although it would be naive to believe that there is *a* final synthesis of emotion, it is imperative to see the big picture of 'emotion' in order to become aware, not only of its immense complexity, but also, and most importantly, of its fundamental role in human life and human behaviours. This new epistemology of emotion that is essentially arising from this new systemic perspective of life is the main platform I will use to deal with the main aim of this chapter—re-understanding human reasoning and emotioning as one whole cognitive dynamics, and re-understanding this cognitive dynamics in the practice of design.

So, in the following pages, mostly through a bibliographical review and personal reflections, I will consider questions such as, how can emotion and mind, as embodied dynamic phenomena, be explained through self-organizing systems?; how are emotion and appraisal processes integrated into the process of cognition?; how does emotion play a fundamental role in the process of cognition and, therefore, in the conservation of the life of human beings?; how is the emotioning process (and developmental emotion) coupled with the environment, thereby triggering adaptable changes between each other?; and what are the relevant environmental components that shape our emotioning as human beings?; By attending to and articulating these and other implicit questions, finally, I will offer a more holistic synthesis of emotion and address its relationship to the notion of design. As I will argue, the link between emotion and design is essential, if we really want to responsibly face the world that we have created and the many challenges that we have today as eco-cultural beings.

Understanding the Cognitive Role of Emotions in Humans' Embodied and Eco-Cultural Existence

Etymology of Emotion

Examining the word emotion from its etymological meaning is a good starting point to grasp the dynamics of the concept and its active presence in life, particularly in our human existence as bio-eco-cultural beings. From the Latin word *emoverse*, the term literally means movement; it is about 'externalized behaviour'. As an outward movement, it is intrinsically a dynamic event in which the subject of the phenomenon moves in the world in which it lives. In this sense, we can

also say that emotion always happens in someone—emotions are part of the dynamics of existence of that someone. Also, this *moving subject* necessarily exists in an *ecology of movements*. Thus, it could be said that there are three important domains that we can *abstract* from the etymology of this word: the subject (system) in which emotion takes place as part and parcel of it; the movement or behaviours of the subject through its emotioning; and the medium in which the emotional subject exist. However, if we understand these three dynamics separately, this would be to continue a Cartesian division between subject and medium. In contrast, to understand emotion and its fundamental role in human life, we need to examine the dynamics of *emoverse* as a whole systemic process—that is, from its Latin etymological meaning, emotion needs to be understood as a whole complex process in which the *moving*-subject continually *moves* in and *moves* a world, so they *move together* coherently and continuously, allowing the ongoing *moving*-subject to exist. From a systemic perspective, this means that it is necessary to understand, (a) the embodied dynamics of emotion; (b) the behaviour and, eventually, the intention that is implicit through its dynamics as part of a self-organizing phenomenon; (c) the medium in which the emotional behaviour takes place and is continuously shaped (an eco-cultural medium, in human beings); and (d), that (a) (b) and (c) are one complex cognitive phenomenon which is part and parcel of human life.

Emotion: an Embodied Phenomenon

The association of emotion and body is not new. The phenomenon of emotion, especially those historically classified as negative emotions, has almost always been linked with the body. We have just seen that emotions have been linked to the 'bestial' part of humanness, the 'visceral' body. It is not surprising therefore, that it is in the biological and psychological sciences, as areas of knowledge that have been dealing with embodied phenomena, in which we can find the most adventurous theses that are (1) questioning the historical negation of emotions, and (2) contributing to the explanation of the mechanisms or dynamics of emotion—this time, however, overcoming the modern perspective that has separated reason from emotion (or mind from body). In other words, through the epistemological changes about the indivisibility of mind-body or reason-emotion, the way to study and understand emotion has also changed explicitly.

In this sense, the contribution of neurobiology in the last few decades has been particularly important. Relatively new neurobiological visions not only situate emotion in a brain domain, but also, and most importantly, they see emotion as an essential system (or sub-system) within the sensory-motor dynamics. Here, embodied emotion appears to be part of an *embodied mind* process. So it seems that the historical negation of emotion through the power of reason, or the cultural treating of emotion as a dispensable apparatus, is nonsensical, since emotion, as an embodied event, has become a central phenomenon to explain the human mind. As Antonio Damasio explains, traditionally speaking, the neocortex area of the brain (that is, 'the high and new' part of the brain) has been associated with 'reason' and 'willpower', while the subcortex (the 'low and old' structure of the brain), especially the hypothalamus, has been associated with both the emotional aspect of the brain and all the 'weak, fleshy stuff'. Nevertheless, this dichotomy of high-low and reason-emotion does not really 'underline rational decision-making', nor explain the importance of the 'low part' of the brain (emotions) in the brain dynamics as a whole. On the contrary, Damasio asserts that emotions are not only part of the brain dynamics, but also the neocortex areas of the brain are highly interconnected with 'downstairs', the subcortex, which plays a key role in 'biological regulations' within the system. As he says, 'nature appears to have built the apparatus of rationality not just on top of the apparatus of biological regulation, but also from it and with it... the neocortex becomes engaged along with the older brain core, and rationality results from their concerted activity'.[12]

Thus, emotion, although especially associated with some part of the brain, seems to be a fundamental part of a whole and complex system. Douglas Watt explains emotion as a 'prototype whole brain event', that is, a complex (therefore non-linear) phenomenon that embraces many regions and subsystems of the brain.[13] Izard goes further and describes emotion as 'a complex process with neural, neuromuscular/expressive, and experiential aspects'[14] In this sense, Thompson proposes that Watt's description of emotion can be amplified to a 'prototype whole-

[12] Antonio R. Damasio, *Descartes' Error: Emotion, Reason and the Human Brain* (Picador, 1995), 128.
[13] Watt, quoted in Evan Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind* (Belknap Press of Harvard University Press, 2007), 362.
[14] Carroll E. Izard, *The Psychology of Emotions* (Plenum Press, 1991), 42.

organism event, for it mobilizes and coordinates virtually every aspect of the organism'.[15] That is, it seems that emotion is not only involved in the whole dynamics of the brain, but it is also part of the entire action-perception process of the body as a dynamic system. Also, in many animals, and particularly in human beings, it includes the feelings of those emotional states. In other words, from a psychological perspective, this embodied event, at a more complex level, also includes the phenomenological and conscious experience of it.[16] I will deal with the emotion-feeling interconnection, later in this section.

Emotion, Self-organization and Intention

A major change introduced by systemic and holistic science is that it understands the biological mechanism of living beings as self-organized systems (or, more specifically, as autopoietic systems) and includes emotion as an essential component of this process. Maturana, for instance, understands emotion as an embodied event, and defines it as 'body dispositions for action'[17]. So, since he asserts that everything that happens in the body of a living being is part of its autopoiesis, this means that emotion must also be part of the autopoiesis of the organism. In other words, emotion is determined by the self-organizing organism because it is part and parcel of it. From a biological perspective, emotions are formed and conserved through ongoing body (structural) changes which are part of the autopoiesis of an emotional organism.

In the face of this complexity, how does emotion take place in a self-organized system? What is the role of emotion in the whole action-perception system in a self-organized system? In order to answer this question, which in the last few years has been central to the biology of emotion and cognition, we would need to deeply understand the neurobiological processes present in emotions. Clearly, this task goes beyond the scope of this thesis and my academic knowledge, but I still think that it is important to have a clearer general picture of the importance of emotion in human behaviour.

---

[15] Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, 362.
[16] Ibid., 363, 381.
[17] Humberto Maturana, "Reality: The Search for Objectivity, or the Quest for a Compelling Argument," *The Irish Journal of Psychology* 9, no. 1 (1988): 49.

Walter Freeman has generated a neuro-dynamical model that closely matches the principle of self-organization present in autopoietic systems, as explained by Maturana and Varela[18]. Freeman asserts that, a starting point to explain the outward movement that implies the process of emotioning (as indicated in its etymology, 'e(x)motion'; ex = 'outward'), is to relate it to the 'intention to act in the near future'. That is, Maturana's 'body dispositions to actions' is understood here 'as the anticipation of intentional actions'.[19] However, Freeman makes an important distinction between the conventional or modern understanding of intention as a response to a linear input coming from the environment (usually explained as 'linear causality'), and intention as an emergent phenomenon that takes place within a self-organized system (usually explained as an emergent property of circular causality). As he claims:

> The key characteristic is that intention wells up from within the organism. It is not a reflex. It is directed toward some future state, which is being determined by the organism in conjunction with its perceptions of its evolving condition and history.[20]

In this sense, Freeman links, what he calls 'the two key properties of emotion': 'endogenous origin [i.e. self-organizing origin] and intentionality'.[21]

Freeman explains and criticises the model of linear causality of perception and emotion as the typical 'passivist-cognitivist view'. Here, it is assumed that the body internally processes a representation of an external input which is received by the sensory systems. Then, the information is carried to the brain by neurons, first to the thalamus and then to the frontal lobe, in which it is processed. After that, the information, now as a response, indirectly passes through the old part of the brain, particularly the amygdaloid nucleus, 'where emotion is attached'. Finally, it is delivered to different motor systems (mainly muscles) which generate a particular behavioural response.

However, this 'attachment' of emotion after an appraisal central process that responds to inputs from the environment and that executes a particular action, constitutes an account that is exactly

[18] See Chapter 1
[19] Freeman, "Emotion is Essential to all Intentional Behaviors," 211-213.
[20] Ibid., 214.
[21] Ibid.

the opposite of the understanding of perception in self-organizing terms, as examined in Chapter 1. In contrast, Freeman proposes a model of causal loops in which emotion is not only at the core of a self-organizing action-perception loop, but it is also fundamental in the generation of states of anticipation that prepare the body for a near future. Freeman suggests that perception does not begin as a representational response but 'with emergence of a *goal* through self-organizing dynamics in the limbic system'[22]—an area of the brain which has recurrently been associated with emotion.[23]

> Our actions emerge from a continuous loop that we can divide into three stages. The first stage is the emergence and elaboration within our brains of goals concerning future states, towards which we will direct our actions. The goals are in nested layers, ranging from what we do in the next few seconds to our ultimate survival and enjoyment of life. The second stage of the loop involves acting and receiving the sensory consequences of actions and constructing their meaning. In the third stage, we modify our brains by learning, which guides each successive emergent pattern. These three stages are accompanied by dynamic processes in the brain and the body that prepare the body for forthcoming actions and enable it to carry them out. My view is that we observe and experience the preparations as emotions…[24]

In more specific terms, Freeman's model is constructed of five loops that are interconnected by the limbic system (again, the brain section associated with emotion) which is, consequently, embedded in these loops. He calls it 'the dynamic architecture of the limbic system'. The five complexly interconnected loops involve the neurobiological dynamics of the brain, the participation of the body, and its coupling with the environment—they explain the self-organized action-perception phenomenon as a cognitive process. Examining and explaining the complex dynamics of each of these loops goes beyond the scope of this chapter [25]. However, it is important to say that (1) from this dynamic self-organizing process, a whole motor system (ultimately, a body disposition) constitutes a 'state of expectancy' (or 'intention', 'anticipation') which *determines* the dynamics of the sensory system (and ultimately the whole process of cognition) when a perturbation from the environment triggers a structural change in the body. (2)

[22] Ibid., 218.
[23] Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, 367.
[24] Walter Freeman, *How Brains Make up their Minds*, Maps of the mi (Weidenfeld & Nicolson, 1999), 123-124.
[25] See Ibid., 123-155; Freeman, "Emotion is Essential to all Intentional Behaviors," 220-223; Also reviewed in Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, 366-370.

Although the brain (and specially the limbic area) is particularly important in the complex action-perception loop, the model shows that the whole action-perception loop (in which emotion takes place) is a dynamic, self-organized and complex whole-body event, while being in continuous interaction with the environment which *only* triggers changes in this system of loops.

The most important implication of Freeman's neuro-dynamical model for us now, is that emotion is at the core of the whole action-perception loop. In general, then, emotion is an embodied, dynamic and complex process which is part and parcel of the autopoiesis of the system. It plays a central role in the self-organizing action-perception cycle which *defines body dispositions that constrict behaviour*. In this sense, the relationship between emotion and the direction of behaviour is becoming clear. As Thompson synthesises,

> ...Emotion is not a function in the input-output sense, but rather a feature of the action-perception cycle—namely, the endogenous initiation and direction of behaviour outward into the world. Emotion is embodied in the closed dynamics of the sensory motor loop, orchestrated endogenously by processes up and down the neuraxis, especially the limbic system.[26]

So, anticipation/intention emerges from emotion (or indeed is emotion) in a self-organizing manner. This anticipation/intention continuously guides our behaviours in the dynamic changing present. Maturana also recognizes the importance of this point. In fact, he says that emotion, as a body disposition to actions, always defines a kind of behaviour[27], although he stresses that autopoietic systems are intrinsically purposeless systems—that is, that intention, purpose, and goals belong to a different domain, namely, that of the external observer[28]. Nevertheless, as I understand it, Maturana, like Freeman, is concerned with the conventional perspective that relates biological self-organizing intention with 'external', functional and behavioural purpose. The difference between Freeman and Maturana is that Maturana does not explain the fact that intentions, anticipation and goals can be presented as emergent properties of the self-organization of the motor-perception loop. As Thompson suggests, 'intentionality is no mere static relation of

[26] Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, 365.
[27] Maturana, "Reality: The Search for Objectivity, or the Quest for a Compelling Argument," 48-49.
[28] Humberto Maturana and Francisco J. Varela, "Autopoiesis: The Organization of the Living," in *Autopoiesis and Cognition: The Realization of the Living* (Reidel, 1980), 80, 85.

aboutness, but rather it is a dynamic striving for intentional fulfilment'[29] Lewis adds that the notion of goal 'is not just future states to pursue; they are ways for the brain to stay organized, and they are necessary conditions for emotion'.[30]

Let me return to the notion of emotion, and especially to its association with behaviour. If emotion is self-organizing in a complex system of loops, all behaviours that they guide either trigger the conservation of a particular emotional pattern resulting in the conservation of this kind of behaviour, or trigger a change of emotions, that, consequently, define new behaviours. As Maturana asserts, in general, all animals continually move from one emotion to another in a continuous 'emotioning' process, configuring different manners of acting in the flow of living[31]. Human beings, in particular, are not an exception. Our ways of seeing, hearing, moving, thinking and reflecting, always operate following our emotions, so, they change when our emotions change. But also, the embodied actions of seeing, hearing, moving, thinking and reflecting, while being coupled with the environment, trigger changes in our bodies that end with the conservation or modification of current emotions (of 'body dispositions').

In this sense, if we, as external observers, want to give a role to emotions in the action-perception loop in which they take place, it would be 'to help' in conserving a coherent functioning and correspondence of (a) the systemic metabolism of the body, and (b) the organism interaction with an external medium. That is, as I understand it, Freeman's explanation of emotion as self-organizing intention is ultimately a cognitive phenomenon. In other words, if emotioning guides our actions in the dynamic changing present, it also means that it has a fundamental role in the dynamic conservation of the organism's adaptation to its medium and, consequently, in the conservation of its life—i.e. conservation of autopoiesis and adaptation (or structural coupling). As Damasio concludes, 'all emotions have some kind of regulatory role to play, leading in one way or another to the creation of circumstances advantageous to the organism exhibiting the phenomenon; emotions are *about* the life of an organism, its body to be precise, and their role is

[29] Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, 364.
[30] Marc D. Lewis, "Emotional Self-organization at Three Time Scales," in *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, ed. Marc D. Lewis and Isabela Granic (Cambridge University Press, 2000), 64.
[31] Maturana, "Reality: The Search for Objectivity, or the Quest for a Compelling Argument," 49.

to assist the organism in maintaining life'.[32] (Important Note: from now on, I will use the term 'cognition' with a lower case 'c' to denote appraisal aspects such as planning and assessment; and 'Cognition' with an upper case 'C', to denote a more holistic phenomenon that also includes emotion, and therefore refers to the ultimate biological meaning of the term: the process of maintaining the life of an emotional being)

Emotion-Appraisal and Cognition

In a culture that has divided reason from body for more than two thousand years, the correlation between appraisal, emotion, and conservation of life has been profoundly eclipsed. Cognition is usually associated only with appraisal terms such as planning, assessment, and reflection. Consequently, from a Cartesian dichotomy between mind (cognition) and body (emotion), the role of our body and emotion in the process of Cognition as a whole, has been forgotten. However, this dualism has been questioned: if emotion is part of the process of Cognition, and Cognition is also constituted by different appraisals such as planning and assessment, how is it that these two historically separated processes (appraisal and emotion) are integrated in one whole dynamic?

It is imperative to overcome the dichotomy between appraisal and emotion and, in contrast to any Cartesian approach, to understand their interdependency—to comprehend how they configure an essential part of the complex matrix of Cognition. Freeman, Maturana and Damasio have critically helped to overcome this dichotomy and therefore generate a more holistic and coherent biology of Cognition. In following this line, Marc Lewis has proposed a systemic model that explains the interdependent interaction between appraisal and emotion.

Lewis says that, although emotion theorists have studied the relationship between emotion, cognition and behaviour for several decades, the relationship has been mainly explained through 'linear' and 'simple' cause-effect processes 'that go in one direction from antecedents to consequences'. He points out that there are three main conventional approaches to the emotion-cognition (or appraisal) relationship. First, the theorists who argue from the appraisal side

[32] Antonio R. Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, 1st ed. (W. Heinemann, 1999), 50.

(commonly known as 'appraisal theory of cognition') say that the appraisal process produces understanding and meaning which enable emotion to respond in accordance with that appraised situation. 'Appraisal theorists', Lewis says, 'generally view appraisal as a temporal and causal antecedent to emotion'. The second approach is about the 'cognitive function of emotions'. Emotions play a functional role that causally constrains the cognitive process. The third approach is concerned with 'personality traits and clinical disorders' in which certain emotional patterns of personality or clinical emotional states such as depression, anxiety or optimism, enhance and conserve appraisals patterns that correspond with these emotional states. [33]

The three conventional approaches, although from a linear and simple perspective, have contributed to a reunification between cognition and emotion. Nevertheless, I agree with Lewis that a more integrated perspective is needed, a 'bird's eye view' which suggests that these linear perspectives are much more complex and, therefore, systemic. Based on these conventional views, Lewis suggests that, 'if appraisals give rise to emotions and emotions influence cognitive processing, then bi-directional causation would be important for explaining appraisal-emotion interactions'.[34] Lewis therefore asserts that appraisal and emotion are not separate systems. Further, he proposes a developmental model in which appraisal (unconscious and conscious) and emotion continuously influence and modify each other in a close dynamics of feedback (or circular causality, or bi-directional causality[35]), thereby configuring a higher order of 'appraisal-emotional amalgams'.[36] The appraisal-emotional amalgam becomes the basis of what Lewis calls 'emotional self-organization'—namely, emotional developmental dispositions.

Lewis' model of 'emotional self organization' is presented at three time scales: the 'microdevelopment of emotion episodes' (which lasts a few seconds and minutes), 'the 'mesodevelopment of moods' (a few hours or days), and the 'macrodevelopment of personality' (months and years). At each time scale, 'emotional self organization is modelled as an emergent

[33] Lewis, "Bridging Emotion Theory and Neurobiology Through Dynamic Systems Modeling," 170-171.
[34] Lewis 1999, in Ibid., 171.
[35] As Lewis explains, 'circular causality describes bidirectional causation between different levels of a system. A coherent, higher-order form or function *causes* a particular pattern of coupling among lower order elements [emotion and appraisal], while this pattern simultaneously *causes* the higher-order form'. [i.e., appraisal-emotional amalgam], Lewis 2005, 174
[36] Lewis, "Bridging Emotion Theory and Neurobiology Through Dynamic Systems Modeling."

cognition-emotion interaction'.[37] What is really interesting about Lewis' model is that it relates 'real time' emotions of seconds and minutes with longer behavioural patterns in a 'developmental time' such as moods and personality. Let me briefly present some of the aspects of these three time scales of cognition-emotion interaction from which 'emotional self-organization' emerges, and then see how Lewis argues the interconnectedness of these three time-scales.

The microdevelopment of emotion episodes, as Lewis explains, is very fast and has a short duration of seconds or minutes. As we have seen, the conventional appraisal views of cognition-emotion relationship assert that emotion is just the response of a previous cognitive assessment of a given situation. In contrast, and based on various psychological and neurobiological evidence, Lewis argues that 'it is not at all clear that appraisal actually precedes emotion'. As he comments, neurobiological studies show that triggered emotional reactions emerge up to half a second before the perception of the perturbation is complete and ready to be conceptually disclosed. In this sense, Lewis proposes that 'appraisal processes can be reconceptualised as emergent order in the cognitive system corresponding to, but not preceding, emotion.' So, when an emotion is triggered, rapid attention (i.e., appraisal interpretations of the situation) also emerges and they start to modify each other; this mutual modification or 'appraissal-emotion amalgams' generates a global higher form that Lewis calls 'emotional-interpretations'. This emergent global form, which is constituted by the appraisal-emotion coupling, limits the way that they modify each other. In other words, from the continual modification between emotional and appraisal processes, and within an increasing complexity in time, a global emotional-appraisal *pattern* is formed. This pattern (emotional-interpretation) constricts its own process. In a brief moment, it becomes more complex, stable, and difficult to modify[38]. The result of this process is an eventual

[37] Lewis, "Emotional Self-organization at Three Time Scales," 38.

[38] A principle of self-organization is 'emergent order'. Lewis explains that 'self-organizing systems show the spontaneous emergence of order out of (relative) disorder. Following some perturbation or trigger, novel forms arise without instruction or programming, based on interactions among the system elements themselves'. 'Emotional interpretation' is the form that emerges from a progressive order that is constituted through emotion and appraisal interaction (in Lewis 2005, p74)

appraisal stabilization (understanding of the situation), the constitution of a dominant emotion, and the configuration of a path of action.[39]

Lewis asserts that the global term 'emotional-interpretation' is, in a way, problematic, because it is just the union of the two interacting systems that actually generates the global form. Thus, he proposes that 'a better depiction of the higher-order form, and one that truly captures its qualitative distinctiveness, is Freeman's notion of a global *intention* of acting in the world.'[40] In this sense, Lewis is explaining how self-organized intentionality, as examined above, is constituted by a rapid emotional-appraisal interaction. Here, we can not only understand the Cognitive role of the emotions through the generation of self-organized 'intentions', but also how they are part of a complex process that includes many forms of appraisals, conscious and non-conscious. It seems therefore, that at this level of appraisal-emotion amalgams, the differentiation between them is just a rational division that is important for the identification of a sub-system within a Cognitive process. But, if we really want to understand Cognition in general, and emotion in particular, we need to see this process as a whole.

The mesodevelopment is concerned with the emotional self-organization in moods. As traditionally defined, moods are longer emotional states that last for hours or days. They have a huge influence on the way that we perceive and behave. It is easy to notice how our moods can change completely from one week to another and then analyse how different our attitudes can be toward the world and ourselves. In Lewis model, this state embraces an emotional form and an appraisal pattern in which both, as in the microdevelopment scale, also configure a higher order. Following Freeman's intentionality, Lewis proposes that the higher order that dominates in this time scale is 'enduring *intentional orientations'*. If the intentional orientation changes, it means that all the landscape defined by moods in which emotion-appraisal takes place, has also changed. This means that, when our moods change, the landscape of attractors of emotional-interpretations (intentions) can also be modified. Also, the change of moods (as any systemic change), involves chaotic 'fluctuations' prior to the final stabilization of a mood. As Lewis

[39] Lewis, "Emotional Self-organization at Three Time Scales," 43.
[40] Ibid., 44.

explains, for example, prior to the stabilization of a mood like depression, different states such as 'angry, sentimental and guilty may fluctuate'. He asserts that 'this progression from fluctuation to entrenchment is what characterizes moods as developmental processes'. Lewis also explains that the difference between this time scale and the emotional –interpretation one, is that moods 'persist' while the others dissipate or change rapidly. Especially in negative moods, he suggests that 'they persist because no action can be taken to resolve them'.[41]

> Intentions prepare for actions, and actions dissipate intentions. But if actions are not attempted or are not effective, then emotional engagement with goal-relevant associations and plans may keep the goal alive, not as an immediate prospect but as a need or wish extending over time.[42]

So, if negative moods persist because no actions that may change them can be taken, could it also mean that, on the contrary, positive moods (the ones that we would like to maintain, such as a state of happiness, harmony or love) may be conserved if a certain kind of actions from which they seem to emerge, is conserved. This is similar to what I have explained above. On the one hand emotions (intentional orientations, in this time-scale) define a kind of behaviour, but also our behaviour may conserve or change our emotions. What Lewis is adding is that self-organizing moods (intentional orientation) 'may arise through the entrainment of an interpretive bias with a narrow range of emotional states'. In other words, the 'intentional orientation', as in 'emotional interpretations' at the microdevelopment scale, emerges from a mutual appraisal-emotional interaction, creating a particular emotional 'landscape'—namely, a mood.

The macrodevelopment level in emotional self-organization is the personality pattern. Lewis asserts that 'personality development can be described as a change and stabilization in the state space of cognition-emotion interactions. The macrodevelopment, therefore, defines a basic shape, a 'state space' that endures for many months and years. Moods can modify the 'contour' of this 'state space', and emotional interpretations 'gravitate to attractors' that are located in this state space, but the macrodevelopment is very stable. However, Lewis explains that 'the vehicle of personality is a network of complementarities that evolve over macrodevelopment with recurrent experiences, and these complementarities both arise from and constrain coupling in emotional-

[41] Ibid., 46-50.
[42] Ibid., 49.

interpretations and moods'.[43] The stabilization of this network occurs principally during infancy, the state in which most of the personality is shaped. This process has been explained by the psychological 'theory of attachment'. Nevertheless, Lewis claims that even personality has a developmental process that may change considerably during our lives.

Lewis also asserts that, 'If immediate intentions subsume cognition-emotion coordination in microdevelopment, and intentional orientations subsume the coordination of emotional-interpretive biases in mesodevelopment, then perhaps the superordinate form in macrodevelopment can also be portrayed as a subjective, intentional, thrusting forward into the world – this time lasting for months and years. A *sense of self*—the "I-self"...'[44] I think that this point is fundamental to the understanding of Cognition in general and emotion in particular. As we have seen in Chapter 1, life is an ongoing process, a changing homeostasis. The experience of 'self', although it appears very stable in time, is always changing. The self is not a static subject but, as Guidano proposes, a self-in-process[45]. So, what Lewis is adding to this understanding, is first, the fundamental role of emotions in the permanent flow of the self and the experience of it through emotion-appraisal dispositions. And second that through the ongoing interweaving of emotion-appraisal, in a developmental way, 'interpretative emotional habits' are formed—that is, particular manners of living with oneself and with one's medium. Lewis is adding valuable and clear information about the link (or merging) between the phenomenon of emotion in 'real time' and emotion development—namely, between our every-day life and a dominant and enduring form of living. Through Lewis' perspective, the ongoing presence of emotion in human life (a phenomenon that, in Maturanian terms, we can call *emotioning*) is much clearer.

Lewis asserts that scale-to-scale influences happen both from the lower to the higher and the higher to the lower scales. They are reciprocal. For example, from the lower to the higher, an emotional-interpretation (real time intention) can trigger the emergence of a mood which eventually would constrain future emotional-interpretations for a while. Or a recurrent mood in infancy can configure a certain personality which will limit future moods for several years. As he

[43] Ibid., 55.
[44] Ibid., 57.
[45] V. F. Guidano, *The Self in Process: Toward a Post-Rationalist Cognitive Therapy* (Guilford Press, 1991).

explains, short emotional-interpretations, i.e. real time emotional processes, can influence the development of longer scales of emotional–appraisal processes, such as moods and personality. On the other hand, from the higher to the lower, the complementarities that are formed from complex networks of emotional-interpretations and moods over the years 'should strongly constrain the possibilities for feeling and thinking in the moment'.[46]As we have seen, personality and moods define the landscape in which the attractors of emotional-interpretations take place.[47]

So, if the self-in-process (and the sense of self) is, in a way, constituted by an emotion-appraisal 'network of complementarities', and if this network of complementarities constrains the emotional rapid flows and more stable moods while being formed by them, this means that daily emotions and moods have a great influence on the configuration of the path of our lives. As in every systemic phenomenon, patterns are constituted by a network of components that interact with each other. If we understand the self as a systemic dynamic phenomenon, then the components of its network are all the self-organized emotional-appraisal (Cognitive) interactions present in this ongoing process—that is, all our actions or behaviours. So, here we have the powerful and fundamental importance of all, absolutely all, daily life emotional-appraisal (Cognitive) dispositions and behaviours, from the feeling of a rapid event, to our thought and reflections, to our dreams, to the way we live a most rational action. Strictly speaking, no moment, not even the most insignificant one, is trivial in our lives. Further, through a developmental manner of explaining self-organizing emotion, Lewis clarifies that patterns of living (intentional orientations and sense of self) can be either cultivated or modified. A sense of well-being must be maintained moment after moment—it is not a given condition. And a negative pattern of life can eventually be modified through the emergence of new emotional dispositions that start breaking the order, triggering fresh emotional-appraisal amalgams, and eventually reconfiguring the emotional landscape. In other words, here lies the Cognitive root for human behavioural change: our emotioning.

[46] Lewis, "Emotional Self-organization at Three Time Scales," 61.
[47] Ibid., 60.

Based on Lewis' model, it is possible to see how the Cognitive process of an emotional being, especially a human being, is not just an unconscious process. Subjective and conscious experience of a sense of self and sense of the other's existence (usually defined as empathy) also take part in human Cognition, therefore configuring a whole complex dynamics. Although I agree with Freeman and Thompson that basic biological emotions and more complex emotional structures such as conscious feeling configure an indivisible wholeness, it is, nevertheless, important to distinguish them and see their function in Cognitive processes. In other words, I think it is important to include the feeling of emotions in order to have a clear idea of the complex form that emotions have in human beings.

Emotion, Feeling and Consciousness

Unlike many psychologists and theorists of emotion, Antonio Damasio makes a clear difference between emotion and feelings. Although he recognizes that they are part of the same continual progression (mainly in evolutionary terms), he asserts that it is important to differentiate them in order to understand their mechanisms. Emotions, he asserts, are all the body changes which can be triggered and executed non-consciously; feelings, are the representation or perception of emotions that can be non-conscious (a 'state of feeling') and conscious (a 'state of feeling made conscious'), that is, 'known to the organism having both emotion and feeling'. He says that feelings are private experiences of emotions. Observers do not have access to them. Emotions, on the contrary, are easy to observe because they are always bodily manifested.[48] Similarly, Freeman asserts that feelings can be conscious or not (he uses awareness), and suggests that feelings are the experiences of emotions. Following the fact that emotion is part of a self-organizing dynamics, Freeman also suggests that, although we usually associate our feelings with objects of the environment (the *qualia*, in philosophical terms), such as 'the sweetness of fruit', or 'the repugnance of carrion', 'actually they do not belong to those objects; they are embedded and 'internally derived'.[49] This reminds us that, like emotions, feelings also emerge from self-organized embodied processes. Damasio stresses the difference between conscious and non-

[48] Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, 37, 42.
[49] Freeman, "Emotion is Essential to all Intentional Behaviors," 215.

conscious feelings. He argues that feelings can emerge before we become aware of them. As he says, 'we often realise quite suddenly, in a given situation, that we feel anxious or uncomfortable, pleased or relaxed, and it is apparent that the particular state of feeling we know then has not begun on the moment of knowing but rather some time before. Neither the feeling state nor the emotion that led to it have been "in consciousness", and yet they have been unfolding as biological processes'[50]

Damasio asserts that both emotion and feelings however, are different levels of the continuum of the regulation of evolutionary life. They constitute different levels of life regulation that have developed through evolution, from basic life regulations, to emotions, to feelings and to high reason and the knowledge of feeling and emotion. These levels have circular upwards and downward causation.[51] That is, Damasio confirms that both emotion and feeling, as we have seen, are part of the process of Cognition—that is, the conservation of life in all those living being that have emotions. In Damasio's terms, emotion and feelings are a fundamental part of the homeostatic regulation of life. Emotions are just an 'automatic' part of the Cognitive process of emotional living beings. He suggests that many of the organisms that have emotions do not have feelings because they are not able to perceive emotions. But, for the organisms that can perceive their emotions—that is, to have feelings, another level of life regulation is present. He claims that 'consciousness allows the feelings to be known and thus promote the impact of emotions internally, allows emotions to permeate the thought process through the agency of feeling'. He even suggests that some animals might have feelings without being conscious of them. [52]

In this sense, Damasio would agree with Freeman and Lewis that feelings are not only part of an embodied mechanism, but also, from that embodiment, they are part of Cognitive processes. As he points out, 'having feelings is of extraordinary value in the orchestration of survival'.[53] But as he notes, 'having feelings' is not the same as 'knowing feelings'. It is really important to understand the interconnection between knowing feelings, as conscious states, and emotions. As

[50] Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, 36-37.
[51] Ibid., 53-556.
[52] Ibid., 56.
[53] Ibid., 285.

Paul Harris points out, 'we shall not fully understand emotions unless we take that capacity for awareness and reflection seriously...Our ability to report on and anticipate our emotional state critically turns on the extent to which we are aware of, and understand, the way that we feel'.[54] The knowing of feelings—that is, being conscious about them, generates a new level of plasticity in the conservation of the organism's life. The knowing of feelings is part and parcel of the conscious languaging processes of planning and reflection. Human beings are consciously able to plan ideas, to seek and cultivate certain behaviours which eventually conserve certain emotions that generate states of well-being, or to avoid certain potential moments of dislike. Also, we are able to consciously generate situations for emotional change—to act in a certain way that could ultimately alleviate a depressive or angry mood. For example, as we have seen, Lewis asserts that, especially negative moods, persist because we are trapped in closed circles, feeling that we are unable to create situations that would change our moods. Nevertheless, it is through our capacity to consciously guide our acts, our capacity to reflect, that we can generate emotional changes in us and in others. This becomes apparent when we are aware that we can deliberately create situations that will eventually trigger pain, fear or likeness in others or oneself. When we think negatively for a while, then we may feel anxious, or if we start a conversation with someone else with respect and empathy, then we might feel calm and happy. The human capacity for conscious reflection, always interwoven with emotional feelings, is, I think, one of the most incredible human virtues—it is one of the most powerful Cognitive processes of conservation and change of emotional dispositions. Nevertheless, to pay attention to our feelings, to 'see' what is happening in us, is essential for the creation of a path of living in states of pleasure and joy, or for the overcoming of uncomfortable moods or emotional crises. Once again, every Cognitive act in human beings is essentially constituted by self-organizing, complex emotional-appraisal, processes. In other words, *we are able to create platforms that may trigger emotional change when in a negative mood or personality, or to cultivate a certain emotional pattern of well being. This is valid in personal, social and ecological terms.*

[54] Paul L. Harris, "Children's Understanding of Emotion," in *Handbook of Emotions*, ed. Michael Lewis and Jeannette M. Haviland-Jones, 2nd ed. (Guilford Press, 2000), 281.

It is therefore important to distinguish between emotion, feelings and the knowing of feelings. Different organisms have different levels of Cognition. Some have very mechanical emotional processes, and others, like us, are able to consciously know our feelings. This is not to say that the more complex organisms—those that have extremely complex cognitive process like us, are better adapted to the environment. The Darwinian and neo-Darwinian vision of adaptation and evolution in progressive – i.e., always improving – terms is a cultural invention that does not explain this biological phenomenon. Actually, human beings are probably the most complex Cognitive beings and we have had the capacity to take the planet earth and our existence into an exceptional environmental crisis. So, the fact that knowing our feelings (being conscious of our emotions) generates more plastic behaviours in any given situation does not mean that we are more effectively adapted. I would say that it means that we reach a new level of consciousness, mainly a level of responsibility and ethics. This is a level at which our biology gives us the possibility to become aware of the existence of others, that their existence is interdependent with ours, and that emotional well-being is not a solipsistic phenomenon but an embodied-ecological one. Through this awareness, we become responsible for our emotions—namely, the dispositions (intentions) that guide our behaviours. We are responsible for our well-being. We are also responsible for how we see other ecological beings and how our actions might influence them. As we saw in Chapter 1, we are responsible for the world that we create. Our emotioning plays a key role in it.

In this sense, I agree with Freeman that feelings are just another level of emotional complexity. They are another level of Cognition. So, although I think it is important to distinguish emotions from feelings to connote different levels of complexity, I think that it is important not to forget that they are part of one whole, complex, emotional process, and that this emotional process is part and parcel of human Cognition. As Freeman stresses, 'it is neither necessary nor feasible to separate the expression of automatic states [emotion, in Damasio] and one's perception of them [feeling, in Damasio], whether conscious or not, in the intentional loop. They evolve as an organic form.'[55] As we have already seen, all our actions are emotional. In fact, all our emotional

[55] Freeman, "Emotion is Essential to all Intentional Behaviors," 215.

processes are part of a Cognitive process that also involves appraisal components that can be conscious or not. However, human beings, as with any other living beings, live structurally coupled to their mediums. We are eco-cultural beings. That is, we live in a domain that embraces all our human interrelationships, all our interactions with other living beings and the rest of the components of the ecosystems that we bring forth. Self-organization of emotion does not mean isolation from the world in which we live. Our emotional patterns are deeply *influenced* (biologically triggered) by the medium to which we are continuously coupled.

Emotion, Cognition and Eco-cultural Existence

Understanding emotions as part of human Cognition implies that they are intimately related to the medium in which humans exists. In Chapter 1, I have explained that a human being is not an static self, but a self-in-process, and that it necessarily exists in a medium. This whole and inseparable individual-medium dynamics has been referred to by phenomenologists as being-in-the-world, and explained by bio-cognitive science as 'structural coupling'.

Considering these arguments, I have suggested that the medium in which human beings exist is a whole social and ecological network of interactions. That is, that the individual is necessarily an eco-cultural being. This means that all our biological humanity is profoundly related to our eco-cultural existence. So, how can we explain the interdependence between the embodied self-organized emotion and the eco-cultural domain of existence of human beings from an eco-cultural perspective, without negating the embodied and self-organized aspects of emotions? What is the 'role' of the eco-cultural human domain in the process of emotions? How can we generate a more holistic vision of emotion in which biological, ecological and socio-cultural arguments come together coherently?

Although incomplete and dangerously anthropocentric in the extreme, we can start to answer these questions from a social perspective, that is, by considering inter-human interactions only. On the one hand, the organization of social systems is constituted by unique and irreplaceable individuals. Self organizing emotional-appraisal (Cognitive) processes guide the behaviours of each individual. When different individuals start to interact with each other, they create a unique

social network of behaviours. Each social system therefore is unique because it is constituted by specific individuals that interact with each other. Strictly speaking, it seems that our emotioning is the main source that not only guides our behaviours but also, through the interaction with other, the networks of behaviours that constitute social systems. From this point of view therefore, it is possible to suggest that conservation and change of certain emotions command (or at least influence) the path of the social systems in which the individual participates. As Maturana explains, 'emotions create the systemic relational dynamics which conserve them, and a change of emotion entails a basic shift in the systemic relational dynamics of the participants. Different emotions entail different relational behaviours.[56] These *relational* behaviours are what constitute social systems. So, if our emotions change, so do our relational behaviours and the social systems that they constitute.

On the other hand, social systems seem to play a fundamental part in the development of the individual emotioning. The network of behaviours which is dynamically conserved and changed through its human members seems to also 'constrain' the behaviour of its members—namely, that emotions are socially compelled. The social influence on the development of emotion has led many in anthropology and sociology to argue that emotions are developed and shaped in social environments and that this configures a complexity that cannot be reduced to universal factors. These perspectives go from a purely social viewpoint that suggests that emotions are 'specifically' socially constructed, to a more bio-social perspective that brings together the embodiment of emotion and its social formation.

The idea of emotion as socio-culturally created has been developed by several authors from social constructionism. The work of Rom Harré and C. Armon-Jones are particularly important in this field. Armon-Jones explains that, according to constructionism, 'emotions are characterized by attitudes such as beliefs, judgement and desires, the content of which are not natural' That is, emotional attitudes are only 'socioculturally determined patterns of experience and expression

[56] Humberto Maturana and Gerda Verden-Zoller, *The Origin of Humanness in the Biology of Love* (Imprint Academic, 2008), 39.

which are acquired, and subsequently feature in, specifically social situations'[57] He explains that the only prescriptive characteristic of emotion is also a social phenomenon. He quotes Averill: 'emotions are a socially prescribed set of responses to be followed by a person in a given situation. The response is a function of shared expectations regarding appropriate behaviour.'[58] In other words, there is a fundamental relation between socially constructed emotions and socially constructed values—a prescriptive relation that 'has a crucial role in contributing to the acquisition of culturally appropriate emotions and to the subsequent regulation of the agent's responses to emotion-warranting situations'[59]

Social constructionism emerged, in part, as a reactive alternative to the naturalistic view of emotion. As Milton explains, traditional science has sought to understand emotion either as purely biological or socially constructed.[60] Whilst I do agree with the sociological argument that a pure universal, natural, or innate perspective of emotion negates the fundamental socio-cultural influence in emotioning processes and developments, denying the biological aspect of emotion necessarily implies a misunderstanding of the embodied dynamics of emotion as reviewed above.

Margot Lyon recognizes this biological-social dualism as a difficulty and proposes that 'emotional processes are actively engaged in the bridging of bodily and socially domains'.[61] On the one hand, Lyon recognizes that emotion, especially the behaviour and 'activation' that it implies, happens in the body. On the other hand, she argues that this 'activation' always happens in a social realm; it is always related to other human beings. As she asserts,

> an important implication of a truly social perspective on emotion is to see not only how emotion has social consequences but social relations themselves generate emotions. Emotion

[57] C Armon-Jones, "The Thesis of Constructionism," in *The Social Construction of Emotion*, ed. Rom Harré (Blackwell, 1986), 33.
[58] Averill, quoted in Ibid. 33.
[59] Ibid.
[60] Kay Milton, "Meanings Feelings and Human Ecology," in *Mixed Emotions: Anthropological Studies of Feeling*, ed. Kay Milton and Maruška Svašek (Berg, 2005), 27.
[61] Margot L. Lyon, "Emotion, Embodiment, and Agency: The Place of a Social Emotions Perspective in the Cross-Disciplinary Understanding of Emotional Processes," in *Emotions as Bio-cultural Processes*, ed. Bigitt Röttger-Rössler and Hans J. Markowitsch (Springer Science, 2008), 200.

> has a social ontology. That is, the experience of emotion, which involves both physical and phenomenal dimensions, has also a social-relational genesis.[62]

Similarly, Kemper asserts that 'the development of a large portion of what we call "personality" is a social product'. From this standpoint, he claims that 'although a substantial part of the emotional anlage is biological, the social overlay in every culture is so substantial that without it we would not identify the person as truly human'.[63]

This social indispensability present in the development of emotions is called by Saarni 'socialization of emotions'—namely, 'how people come to feel as they do as a result of their relationships over time with others'.[64] From this standpoint, she puts a crucial emphasis on the notion of 'social context' in which emotion is developed and experienced. The social context is constituted by the relationship with others. For example, the social context of children, Saarni explains, is constituted by their specific relationship with their parents, family members, peers, other adults and the mass media. From these 'reciprocal emotion-socializing' networks, children 'acquire both emotion-laden beliefs and emotional-expressive behaviours that reflect these different influences'. In other words, through their social life, children 'learn the emotional behaviour, norms, and symbols of their culture', so they are socio-culturally shaped.[65]

The 'socialization of emotion' however, is not just *learning* how to live in a predefined society. In contrast it also implies creating the socio-cultural system through participation in it. For example, Saarni explains that, as members of their cultures, children also 'become active creators of their own emotional experience'. In Gordon's words, she asserts that 'having understood the cultural meaning of an emotion, children become able to act *towards* it—magnifying, suppressing or stimulating it in themselves, and evoking or avoiding it in other people'.[66] In this sense, Saarni not only argues that emotions are culturally developed through the social relationships present in

---

[62] Lyon 1998 p.55, quoted in Milton, "Meanings Feelings and Human Ecology."
[63] Theodore D. Kemper, "Social Models in the Explanation of Emotions," in *Handbook of Emotions*, ed. Michael Lewis and Jeannette M. Haviland-Jones, Second Edition. (The Guilford Place, 2000), 45.
[64] Saarni 1993 p.435, quoted in Sally Planalp, *Communicating Emotion: Social, Moral, and Cultural Processes* (Cambridge University Press, 1999), 137.
[65] Saarni, Quoted in Ibid., 139.
[66] Gordon, quoted in Carolyn Saarni, "The Social Context of Emotional Development," in *Handbook of Emotions*, ed. Michael Lewis and Jeannette M. Haviland-Jones, 2nd ed. (New York: Guilford Press, 2000), 311.

children's social context, but also that children are 'active creators' of their own cultural 'emotion experience'.[67] Similarly, Lyon says that the social emotional process is integral to any conception of social agency. She argues that the emotional being is 'never simply the passive recipient of society's forces, but through emotion, contributes to the *making* of the social world through its own transformation and its transformative acts'.[68]

In sum, these authors argue that emotion is an embodied and creative phenomenon that arises from within a social system while being an integral creative part of it. This social creative agency of emotion, critically resonates with social constructivist approaches but without denying the biological aspect implicit in it. I believe that the socio-cultural influence on human emotion is fundamental for the understanding of emotion development. We become human beings mainly through interaction with our peers, as explained by Saarni. Nevertheless, I think that this bio-social approach is still too narrow. It reduces human existence to inter-human dynamics and therefore misunderstands emotion in ecological terms. In fact both social constructivist and the bio-social accounts of emotion are ultimately part of a vision that reflects human arrogant aggrandisement and is still unable to overcome the Cartesian culture-Nature dualism. It fails to understand that human beings are not social beings *only*. Socio-cultural and ecological interactions are interdependent and cannot be fully understood separately one from the other. That is, human 'social' existence in ineluctably part and parcel of a major ecological existence. Human beings are also participants and creators of a major ecological world that includes other living beings and other environmental components, flows and cycles that are fundamental to their existence. Moreover, it also fails to situate emotion as a Cognitive phenomenon that is present not only in human beings, nor in the so called 'social' animals, but also in a vast and complex matrix of different terrestrial animals.[69]

---

[67] Ibid., 310-312.
[68] Lyon, "Emotion, Embodiment, and Agency: The Place of a Social Emotions Perspective in the Cross-Disciplinary Understanding of Emotional Processes," 203.
[69] See Jaak Panksepp, *Affective Neuroscience: the Foundations of Human and Animal Emotions* (Oxford University Press, 2004).

Thus, I believe that we need to talk about the *eco*-social aspect of human emotions. Milton has a similar approach. She says that 'emotions are essentially ecological phenomena'[70] Based on Ingold's perspective of knowledge and perception, she argues that 'perception is an ecological process'. This means to her, that perception includes not only cultural domains but also what she calls the 'pre-cultural', which is the condition for the emergence of cultural development. In this sense, she argues that perception is not only a cultural phenomenon but it is the process of learning from and living in a whole 'environment'.

> Human beings learn by receiving information from the environment and remembering it. Emotions... are important in both these processes. If the mechanisms that enable us to learn are pre-cultural, that is, not dependent on social relations, then emotions must also be pre-cultural. It must make more sense to say that emotions are ecological than to say that they are social. I agree that they are generated in the context of social interaction, but they are not generated solely or even primarily in this context. They do not have a 'social ontology' [as asserted by Lyon]. They operate in the encounter between an individual organism and its environment.[71]

Although Milton's perspective does not add anything new to our understanding of Cognition and, to some extent, still understands perception in a representative linear way ('picking information from the environment') without including the self-organization of perception, she represents a major contemporary anthropological view that recognizes the eco-cultural phenomenon of Cognition in general, and emotion in particular, in human beings.

We have seen that self-in-process, as the human continuous emotional-appraisal (Cognitive) process of living, necessarily implies a continuous coupling with its medium. Now, we can say that the interaction with the medium does not imply, as Saarni suggests, a 'socialization of emotion' but a more holistic *ongoing eco-enculturation of emotioning*. This means that, through embodied and ever-changing emotional-appraisal behaviours, the individual continuously participates and therefore *makes* an eco-cultural network of interaction, while the networks that emerge from these interactions also constrain (cognitively trigger) the self-organizing and embodied emotioning. This emotioning process cannot be divided into different realms, e.g. the separation of biological and socio-cultural aspects of humanness into incompatible domains; or

[70] Milton, "Meanings Feelings and Human Ecology," 25.
[71] Ibid., 35.

the separation of self-organizing neurobiological emotional dynamics and the ecological existence of an organism. The ontology of human emotioning is not separately biological, evolutionary, ecological, social, cultural, but a *continuous bio-eco-cultural phenomenon*. This implies understanding emotion as a magnificent complex process that takes place in the whole process of what it means to live, to be a human being in process (or self-in-process)—being-in-the-world. In other words, the embodied processes of thinking, feeling, planning, creating, speaking, playing, walking and dreaming are both parts and creators of eco-cultural worlds. And, simultaneously, the eco-cultural worlds that emerge from these emotional actions, e.g. climbing the hill near home every weekend, or cooking food and having dinner with the family every day, or the art of writing poetry, are the domains in which humans *learn how to live*. It is the domain from which emotion develops in particular ways, commanding our behaviours, and our ways of living, thereby conserving-and-changing our eco-cultural networks of interactions, our worlds; and so on... That is, the *phenomenon of living* is absolutely inseparable from the process of *how to live*, and emotioning is at the core of it.

Ultimately, this bio-eco-cultural examination leads us to comprehend that the central issue is not about trying to find or understand the final objective explanation of emotion, because it does not exist. In contrast, the central issue is just about *how we live* through a continuous emotioning process while inhabiting a particular eco-cultural medium.

This more holistic bio-eco-cultural examination of emotioning helps us to begin to understand its fundamental importance in how we conserve our eco-cultural existence, and by extension, the ecological dynamics of our planet.

Conversing: The Human Way of Existence

We need a holistic view that synthesises our human Cognitive manner of living. In order to do this synthesis, there are three major interconnected phenomena that we need to consider: First, each lineage present today on the Planet Earth, constituted by autonomous living beings in reproductive generations, has had its own evolutionary path that has shaped a particular way of living. As we have reviewed in Chapter 1, the emergence of languaging was one of the most

important evolutionary phenomena that made us human. In a way, and in line with Maturana, we can say that we exist in language. As a coordination of consensual coordination of actions, it is a central mode of human existence.[72] Appraisal phenomena such as planning, reflecting, playing, etc occur through languaging—namely, all our actions take place as languaging actions. Second, there are many living beings (especially animals) that have emotions and which are fundamental for the conservation of their life. As we too are animals, all our behaviours are defined by our emotions (what Freeman calls self-organizing intention). We have also seen that, as conscious and languaging beings, we can feel our emotions; we 'know that we have feelings-emotions' which gives us great behavioural plasticity and the faculty to be responsible for our intersubjective existence. Thus, languaging (as a central human *appraisal* mode) and emotioning occur in a mutual interweaving ('emotional-appraisal amalgams') that, in a systemic scale-linking dynamics, form human 'intentions', 'moods', and a 'sense of self'. Some of these amalgams occur consciously, other unconsciously. Third, we have also seen, that we, as selves-in-process, exist in an eco-cultural medium from which a particular manner of living is shaped, while we, simultaneously, shape that medium through our actions in it. It is apparent therefore, that languaging, emotioning and the eco-cultural domain in which we exist are indivisibly interconnected.

In this sense, Maturana claims that our human existence in language (a mode of human co-existence) necessarily emerged dynamically interwoven with the emotions. This acting-emotioning dynamic interplay is called by Maturana, *conversation.* In this sense, he claims that all human actions are conversations and humanness emerged when conversing started to be used in a recurrent and intergenerational fashion.[73] In other words, conversation is a coordinated network (or networks) of human interactions (behaviour-actions), which is constituted by the interplay between languaging and emotioning (which is also demonstrated by Lewis's 'appraisal-emotion amalgams). Thus, Lewis' developmental model of emotional self-organization—intention, intentional orientation (moods) and sense of self (personalities), when understood in an

[72] Humberto Maturana and Gerda Verden-Zoller, *Amor y Juego: Fundamentos Olvidados de lo Humano*, 6th ed. (J. C. Sáez, 2003), 30.
[73] Ibid.

eco-cultural domain of interactions, can be better synthesised as human conversing. Real-time intentions are in fact every human conversation with its medium, and developmental moods and personalities are stabilized patterns of conversations that constitute a manner of living.

In an inter-human domain therefore, Maturana asserts that *culture* is a network of inter-human conversations that defines a particular way of co-existence. Thus, the network of conversations is formed by the people who participate in and therefore it shapes their way of living.[74] In other words, the unique network of conversations that arises from unique languaging-emotioning individuals in interaction with each other is a bio-social explanation of what we call culture. The use of the term 'conversation' is appropriate in etymological terms (from L. con- 'with' + vertere- 'turn about'); it literally means 'turn about with' which connotes the 'act of living with', 'to keep company with' and also a 'manner of conducting oneself in the world'.

Although Maturana asserts that all human actions are conversations, his argument is mainly centred in inter-human interactions—namely, cultural conversations. He remains relatively silent on whether the term conversation implies human ecological interaction with other non-human beings. This silence is unfortunate, especially since, as we have seen, social science has historically negated the major ecological environment in which we live. I think that it is necessary to clarify that, since the human individual is not a cultural but an eco-cultural being, at least for me, all human actions, but really *all* human actions, are conversations. Conversation is our human way of living. Therefore, conversation is not just talking, doing or planning between human beings, but also, all our ecological interactions that take place in uncountable ways such as diving in the sea surrounded by hundreds of different living beings; fishing; baking the fish with a few pieces of wood; eating the fish; digesting the fish while resting on the sand under a palm tree; having a nap, feeling the salty wind in the face; observing the birds which are also fishing near by on the coast; and planning the rest of the afternoon with a friend who also came to dive, to fish, cook, eat, rest, having a nap, and observe the birds fishing; all these actions, are human conversations. Everything we do is done, inevitably, as human beings existing in conversations.

[74] Ibid., 32.

So, to repeat, we are eco-cultural beings. On the one hand, all our cultural behaviours are influenced by all other ecological traditionally 'non-cultural' behaviours. That is, having deep interactions with the 'natural' world can deeply change our emotioning and the manner in which we will culturally behave once we return to town. On the other hand, our cultural living, which is present from the moment that we are born, or probably before, during our mother's pregnancy, shapes an emotional cultural manner that deeply influences how we relate with other components of our medium. Actually the division Nature-town is artificial and therefore, the practical separation between human settlements and Natural environments that is so common today is eco-culturally prejudicial. In summary, *conversation is the human Cognitive way of living in an eco-cultural world*.

Design: a Human Manner of Conversing

What humans have been doing as participants and creators of a biosphere for millions of years is conversing. In linguistic terms, every verb represents a particular kind of behaviour or activity such as to think, to walk, to meditate, to dream, to cry, to paint, etc. In bio-ecological terms, we have seen that these actions are coordinated modes of being structurally coupled to a medium. Now, we know that every single human action is a conversation: human actions are systemically interwoven with particular emotions. We, for example, cry of pain, cry of anger, cry of happiness, and cry of joy. That is, we never do anything without the interweaving of an emotion. Thus, to talk about verbs (in linguistic terms) and action (in bio-ecological terms) in themselves—that is without interweaving them with an emotion—is an abstraction that is impossible to apply in the human bio-eco-cultural existence.

However, as explained at the beginning of this chapter, our Western-European culture, in its attempt to rationally control the body and Nature, epistemologically separated itself from them. Humanness was conceptually separated from the natural world and mind was separated from the body. The disembodied man was then in a position to control the matter of life (the body, the emotions, and Nature) which was there to serve him. This so called 'modern man', who still forms the basis of our cultural behaviour, reached the highest point of this dualism. In this

historical context, there is an action that emerges in the middle of the last century and became very popular—to design. In the separation between mind and body, the verb 'to design' arrived as a very appropriate term to apply the supremacy of the mind over the body and Nature. In etymological terms, design comes from the prefix *de* and the Latin *signare*. That is, they configure the word *designare* which means 'to mark out', 'to mark', 'to sign'. In English, it means, or is a derivative of, the verb 'to designate'. Thus, in our Western culture, immersed in its endless appetite to control the flow of living, design has been mainly understood and used as a manner of 'marking' or 'designating' the character, identity and modes of other objects that, as understood in Cartesian terms, are intrinsically separated from the subject. In this sense, the etymology of design seems to be mandatory and controlling: rather than designing with the other, designing is about defining the lives of the others. Through the tempo-spatial expansion of the modern-man, it now seems that everything is designed. Nowadays, nothing seems to escape from this activity. We do not only design cloths, tables and houses, but also ideas, services, experiences, genetic configurations, productive plants, insects, landscapes, national parks and even wilderness. Life in this sense seems to become a product of human rational design.

Thus, if there is any eco-cultural intention to leave behind the mind-body, subject-object and human-nature dualisms, and to generate a more holistic and ethical mode of living, is there any justification to keep using this verb? Why should we use the verb 'design' as a mode of restoring our culture to more ecological and sustainable behavioural patterns? Seeking the answers to these questions has been of central importance to me during the last ten years or so, yet they have been particularly elusive. However, now I can claim that yes, we can keep using the verb 'to design' because it evokes a central human form of creation. The problem is not about the etymology of design, but the *way* we have epistemologically construct a manner of living and therefore applied the notion of design—mainly, a way of living and designing based on an arrogant and aggressive emotional disposition.

Thus, I would like to suggest another starting point for the understanding of design that unfolds the root of this phenomenon; an explanation of design that is not primarily explained as, and

reduced to, technological and functional production and use of a world (or object) that is at the service of man, but one that is focused on what we truly do when we are designing.

In Chapter 1, I have asserted that design is an action that is part and parcel of the human praxis of living, of its recurrent 'structural coupling' with a world. Furthermore, in more specific terms, design is part and parcel of an ongoing self-in-process that lives in a particular eco-cultural world. Now I can add that *to design is to converse.* So, what we do when we design is to converse. Designing is a kind of conversation. So I claim that the explanation of designing as a conversation is a primary way of understanding it as a bio-eco-cultural phenomenon. In other words, every attempt to explain design without at least implicitly evoking that it is a kind of conversation would be biologically and socio-ecologically misplaced. The understanding of the phenomenon of design as a conversation has the following paramount implications:

First: *the action of designing is always commanded by emotions*. As any human conversation, designing always implies an emotioning process that commands it. 'What' we design is inexorably attached to 'how' we design. In Chapter 1, we have seen that design implies several appraisal dynamics such as reflection, evaluation and critical observation. As, conversation however, these appraisal dynamics are interwoven with the emotions. So, if we want to understand what happens in any action of design—that is, how a designing process is carried out (e.g., if it considers or negates the participation of other beings or if it consider or negates some ecological conditions), we have to see *the emotions that specify that action of design.* In other words, as any human conversation, design is an 'intentional' action, so it is ineluctably defined by emotion.

Second, *designing is a kind of conversation about facilitating other human conversations*. As seen in Chapter 1, in a productively and materialistically oriented society such as the present Western-European culture, the prime objective of design has been understood as the planning and producing of objects. Designers, it is believed, create books, houses, cities, parks, etc. The problem with that vision is that it puts the created object or service conceptually above what design truly does, that is, the facilitation of a manner of conversing—a manner of living. It is a

vision that does not understand that design always involves people who exist in conversation and therefore it ineluctably affects the manner in which these people converse.[75] Design therefore does not primarily create specific objects or services. In contrast, designing is a human conversation that primarily creates platforms *that facilitate* particular modes of conversing (or living).

Third, *designing is always part and parcel of an eco-cultural network of conversation*. As a human emotional action-in-the world, design is necessarily interwoven with many other forms of conversations and other non-human eco-systemic components. The act of designing influences and is influenced by many other human activities and non-human flows and cycles. In other words, the act of designing is part of the network of conversations that configure our ongoing eco-cultural existence. As seen in Chapter 1, this means, on the one hand, that all our designing processes and designed products are eco-culturally shaped. They are eco-social manifestations that are defined by the network of emotions that define them. On the other hand, as part of a network of conversations, design also *makes* the eco-cultural domain in which it takes place.[76] The primary way that design influences an eco-cultural medium is by facilitating modes of conversations. This is why design is so important as a human conversation. As a platform that facilitates conversation, design always triggers emotional changes in the 'facilitated' people who can either conserve or change a certain behavioural pattern. In this sense, although design cannot define the emotional change of people, it 'encourages' a certain manner of conversing that may result in the conservation of a pattern of living or in the changing of it. The fact that humans are able to feel their emotions gives them great plasticity to orient their actions of design towards the establishment of a desired mode of conversing. For instance, we can design platforms that may try to control the way that people converse thereby maybe triggering fear and aggression, or it

[75] The materialistic view tries to force people under the conditions pre-established by a product or service that has been previously designed. This is biologically misplaced because our behaviour is not defined by external conditions but by self-organizing emotions. It would be a mistake to think that we can design emotions. Design only facilitates the conservation or change of emotions that are self-organizing.

[76] It is usually asserted that design is creative and intentional and therefore it is primarily defined as such. However, these attributes are not intrinsic to design only. We have seen that every human activity—every conversation—influences in the whole ecological network in which it takes place. That is, every conversation is 'creative'. Also, every conversation is 'intentional'; conversations are part of Cognitive self-organizing intentional processes. So, when we say that design is creative and intentional is because it is a conversation.

can be a platform that invites people to converse in a more participatory way, thereby maybe triggering a sense of well-being.[77] As an embodied and eco-cultural process, a design platform always has physical consequences in the medium in which it occurs. No form of design is absolutely abstract, or un-placed.

Four, *every human being is a designer*. Because human beings live in conversation and design is a human kind of conversation, it means that every human being is a designer. I do not have any problem with 'professional design' in terms of creating skilled 'experts' such as architects or engineers, as long as it does not reduce the notion of design to any professional skill. Unfortunately, in many ways, universities and educational institutes of design have done exactly that. The notion of design has been globally expanded in the last century. However, from a Western educational perspective which is supported by a professional society, only a few people are considered and recognized as truly designers—namely, the professional designers. As a professional designer, I now consider this an unacceptable and arrogant mistake.

Five, *the designer is fully responsible for the kind of designing that he does.* Design is always defined by a certain emotional disposition that occurs in the designer and because of that the designer is responsible for the eco-cultural world that is created through the emotions that guide the actions.

The first responsible act of the designer is to associate his designing process with a particular way of behaving, which implies, among other things, to relate it to certain emotion/s. To talk about 'design' alone, as a verb in itself, is phenomenologically, ecologically and biologically misplaced. To talk about design primarily associated with a functional product, such as 'product design', 'textile design', 'graphic design', etc, is also irresponsible. This way of presenting and understanding design belongs to a modern perspective that is totally blind to the role of emotion in human actions. This is a most dangerous situation in that it confuses the priorities of design. It

[77] In other words, on the one hand, we are able to facilitate conversations in the believe that we do not facilitate conversation but rather we define them—that is, that design is about controlling and determining the lives of others. On the other hand, we are able to facilitate conversations that are based on the distinction, understanding, value and respect of the component and participant of the facilitated conversation.

puts production of functional objects (technology) before the complexity of living in conversation, and it reduces human conversation, the experience of living, to those technological objects. This action ultimately negates what it means to live as a human being in continuous conversation. In contrast, design, as a conversation, is ineluctably attached to a manner of designing—a manner of facilitating conversations, a manner of living. Therefore, if there is any responsible and ultimately ethical attitude in designers, an important step is to socially communicate the kind of design that they are doing. And this occurs only when it is ultimately understood as a conversation and therefore associated with the emotioning domain.

Today, we are facing uncountable eco-social crises that are not only deeply jeopardizing human well-being but also threatening human existence on Earth. As part of a major ecology of life, our dominant patterns of conversing (and therefore designing) are also deteriorating and exterminating the lives of millions of other living beings and irreversibly weakening the stability of non-living components and cycles necessary to sustain life. We are responsible for this situation and we are also responsible for seeing how we can change this destructive pattern. A first step, I would suggest, is to reconsider the importance of emotion in our lives, and from a more appropriate understanding of its Cognitive function, to see how we can trigger emotional changes that guides our living in conversation in a more sustainable way. Designing, as a kind of conversing that facilitates conversations, has an important role to play in this urgent change.

Sixth: *if we want to understand the act of designing we have to pay attention to our emotions.* We have to study or learn from our emotions. It is imperative to converse with our emotion—that is to converse with ourselves, with the bodies in which we exist. Obviously, the understanding of emotion does not take place through predefined rational ideals, but through a Cognitive attitude that starts by paying attention to our emotions. The understanding of design as a conversation implies therefore leaving behind the negation of emotions and living in the awareness of their importance; knowing them in the intimacy of our feelings; and most importantly, trusting them. Ultimately, trusting our emotions does not mean rejoining ourselves to our embodied life and to Nature. We have never left our bodies and Nature. Claiming that scientific and philosophical rationalism occurs without our emotions, or that good design is design of technology, is

ultimately another form of conversing that is based on domineering emotions. That is only a cultural epistemology. In contrast, it is about living in the coherence of the flow of our embodied life which is part of the natural world.

***

I have not forgotten the two children who were designing their 'mud-city'. I now believe that, in relation to learning and dealing with our emotional domains, they have much more to teach us, the adults, than we have to them. They are teaching us that there is no difference between the passionate and emotionally oriented act of playing to create a city of mud, and the act of designing our real cities. As any infant animal, these children were experiencing what it means to be a human being. They were conversing. Maybe, getting muddy is a good starting point to re-learn how to sense and trust our bodies and the ecology in which we live.

What we have seen in this chapter can lead us to many important reflections about the understanding of humanness. Understanding the role of emotions in human existence allows us not only to comprehend our humanness from a more holistic and coherent eco-cultural perspective, but also, it may lead us to understand many eco-cultural problems that we are facing today—uncountable crises which, I think, have mainly emerged because of the negation of our embedded emotions, our bodies, and through it, the negation of our participation in Nature. In that negation we have lost the opportunity to listen, to pay attention to, to really feel our emotions and therefore understand why certain emotional dispositions have guided us to generate so much destruction. Alternatively, through carefully listening to our emotions we can understand which kind of emotions can help us to converse more coherently coupled to a harmonious form of living in spiritual, social and ecological terms.

Thus, the examination of emotion conducted in is this chapter opens up important epistemological windows—namely, emotional questions. The most important of these for the scope of this thesis are: What kind of conversations allowed the emergence of humanness? Which manners of conversing are the ones that can conserve human beings in their eco-cultural worlds? How can we sustain our ecological presence on the Planet Earth? What is an ecologically

sustainable conversation? How can we re-start a sustainable conversation and overcome the eco-cultural crisis that we have created? And finally, what kind of conversations is it that we call ‘Ecological Design’?

SECTION II: STEPS TO AN ECOLOGY OF LOVING

Chapter 3

The Emotion of Loving and the Socio-Ecological Domain of Humanness: a Biological Synthesis

Erich Fromm said that 'a theory of love must begin with a theory of man'.[1] For centuries, theories of man have focused on the notion of mind and reason as separate entities from the body, thereby neglecting their embodied dynamics and other phenomena associated with the body. As I examined in Chapter 2, one of these neglected embodied phenomena has been human *emotioning*. In order to overcome this dichotomy and the negation of the body, I have suggested a more holistic bio-eco-cultural synthesis of human emotioning. A central feature of this synthesis is that emotion in general, and its bio-socio-ecological interwoven dimensions in particular, constitutes a vital basis for the understanding of humanness—namely, an existence in an ongoing process of conversing. Now I will focus my attention on a particular human manner of living: loving conversations. The main question is: why do we love? I focus my attention on this emotion because I believe that this has been *the core* for the emergence and conservation of man-kind as a socio-ecological conversing being. My emphasis in this chapter is that loving, as part of complex emotional dynamics, has been the main human emotioning from which our social and ecological humanity has emerged and been conserved for millions of years. As a systemic phenomenon, it is precisely through the human participation in and co-creation of ecological-social mediums that has given rise to and conserved this emotioning. So, in general, I will argue that, if there is no love, there is no eco-social loving conversations, and therefore, no humanness. This simple but strong statement is the essence of answering the main question of this chapter. Thus, borrowing Fromm's words, but emphasising the vital human emotioning and loving dependency, I would say instead that *a theory of man must begin with a theory of love*—namely, the emotioning of loving.

[1] Erich Fromm, *The Art of Loving* (Thorsons, 1995), 6.

In order to substantiate the latter statement and to create the basis for my explanation of the phenomenon of loving, I will generate a brief synthesis of the emotioning of love from a bio-eco-cultural perspective but with a special emphasis on the biological aspect. This will be traced through the manner of living from which our humanness arose millions of years ago, and which is the basis of our current human biology. Innate and socio-ecological factors of love in biological terms opens up a conversation about what happened in evolutionary terms to assert that human beings are biologically loving-beings. So, the question 'Why do we love?' can be reformulated in more evolutionary and systemic terms: how did humanness emerge as a loving being?[2] What did living through loving conversations embrace? Why do we have innate tendencies to love? And maybe more importantly, what would therefore be necessary to keep conserving our loving existence and co-existence? In order to answer to these questions, I will review and link two biological perspectives of the emotion of love developed by two biologists in the last decade: 1. the '*Biology of Love'* and its connection to the emergence of humanness as a social and languaging being, developed by Humberto Maturana (and Maturana and Varela[3], and Maturana and Verden-Zöller[4]); and 2. the notion of '*Biophilia'*, the innate human tendency to affiliate with other non-human life and life-like beings, coined by Edward. O Wilson.[5] I will do so because I think that from their interconnection, not only can these perspectives be reinforced, but more importantly, a more holistic biological synthesis of love can be formulated—a socio-ecological perspective of love rooted in our human biology.

First, I will briefly contextualize what I mean by love as a biological phenomenon. Then I will examine the biological origin and conservation of a loving way of existence from a social and ecological perspective, mainly through a review of Maturana's explanation of the origin of humanness in the biology of love and Wilsons's biophilia. Through the interconnection of these two perspectives, I will offer a more holistic synthesis of bio-eco-social love and I will present

[2] Maturana also adopted this perspective through the question 'what manner of living (organism/niche relation) began to be conserved in our ancestors so we live now as we live now?'
[3] Humberto Maturana and Francisco J. Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding* (New Science Library, 1987).
[4] Humberto Maturana and Gerda Verden-Zoller, *Amor y Juego: Fundamentos Olvidados de lo Humano*, 6th ed. (J. C. Sáez, 2003); Humberto Maturana and Gerda Verden-Zoller, *The Origin of Humanness in the Biology of Love* (Imprint Academic, 2008).
[5] Edward O. Wilson, *Biophilia* (Harvard University Press, 1984).

the notion of 'natural consciousnesses'—a human holistic loving disposition rooted in the interconnection between self-love, social-love and ecological-love.

What does it mean to say that love is a biological phenomenon?

Pitirim Sorokin defined love as a fundamental 'energy' for human survival, a 'vital power'. He says: 'ontologically love is…a unifying, integrating, harmonizing, creative energy or power… …Without the operation of love energy the physical, the biological and the socio-cultural cosmos would have fallen apart'. This energy, he explains is basically 'emotional' and as such, it has a fundamental biological aspect.[6]

> Without the operation of a biological counterpart of love energy, life itself is not possible, nor its continuity, nor the preservation and survival of species, nor life evolution, nor the emergence of evolution of Homo sapiens.[7]

Sorokin mixes an ontological, a universal truth, with the biology of love. We might think that he goes too far and extends an anthropomorphic expansion of love to the whole cosmological existence of life. My attempt is more modest. It is centred on the human biological necessity to live in love. In this sense however, Sorokin's statements are still valid. The emergence of human life, and its biological 'continuity' and 'preservation' would not be possible without love.

A first approach to understanding love as a biological phenomenon and the fact that it is necessary to human existence would be to assert that it is innate or instinctual. William McDougall defines instinct as an 'inherited or innate psycho-physical disposition which determines its possessor to perceive, and to pay attention to, objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or, at least, to experience an impulse to such an action'.[8] A great number of scientific accounts have asserted that human love is partly innate. For example, the psychologist Douglas Kenrick suggests that, because loving relationships involve

[6] Pitirim Aleksandrovich Sorokin, *The Ways and Power of Love: Types, Factors, and Techniques of Moral Transformation* (Templeton Foundation Press, 2002), 6.
[7] Ibid., 9.
[8] William McDougall, in Douglas T. Kenrick, "A Dynamical Evolutionary View of Love," in *The New Psychology of Love* (Yale University Press, 2006), 28.

emotion, and that emotion frequently 'overrides' conscious decision making, human love is, at least partially, an innate emotional mechanism. Thus he proposes that 'love is at its base a set of evolved decision biases'. Love as a set of innate biases 'affect what we pay attention to' and 'how we make decisions'—that is, they affect how we live.[9] The neurobiologist Semir Zeki, in a series of visual neurobiological analyses, asserts that part of the human brain is biologically made to love. As he says, 'fighting against love is fighting against biology, a battle that no one has ever succeeded in winning in the long term'.[10] Similarly, the anthropologist Helen Fisher, based on extensive chemical brain activity and brain scanning studies that she has coordinated for several years, concludes that love (especially romantic love) 'is a universal human feeling, produced by specific chemicals and networks in the brain'.[11]

However, is the argument that love is innately universal to all human beings enough to understand love in biological terms? We have seen in the last chapter that anthropological and sociological lines of thought have deeply criticised naturalistic (or universal) approaches to human existence and behaviours. We have seen that some social lines, reacting to the naturalistic perspective, have polarized their views arguing that human behaviour is specifically constructed in a social domain. I have rejected these polar perspectives arguing that it is biologically and Cognitively incorrect to suggest that human behaviour is only determined in social (and ecological) domains because to do so undermines our embodied-ecological existence—our animal existence, and therefore neglects the fact that we have emotions—that we live in an emotioning ongoing process that has been evolving for millions of years. However, I have also argued that anthropological and social accounts of emotions are correct in considering that emotions in general (and love in particular) cannot only be innately determined. Our eco-cultural existence, we have seen, deeply shapes the way that we live and the way our emotions develop.

Therefore, I have proposed that a human being in general and human emotioning in particular is both innately and eco-culturally shaped. Kenrick recognises this and asserts that the emergence of

[9] Ibid., 16-17.
[10] Semir Zeki, *Splendors and Miseries of the Brain: Love, Creativity, and the Quest for Human Happiness* (John Wiley & Sons, 2009), 132.
[11] Helen Fisher, *Why we Love: The Nature and Chemistry of Romantic Love* (Holt Paperbacks, 2004), 51.

love also deeply depends on human experience, memory, social interactions and physical ecology because human life occurs through 'interpersonal dynamics'. However, he clearly states that the huge human social flexibility and experience is determined by strongly suggestive innate biases.[12] Another similar psychological approach is offered by Leckman et al. who assert that human life in general, and loving relationships in particular (such as parental love and romantic love) are 'biobehavioural'—that is, they are the result of the interweaving of both genetic and environmental factors.[13]

Thus, although the innate presence of loving emotional dispositions is fundamental to the emergence of love, it cannot be presented as a prime argument to explain love from a biological perspective. A biological phenomenon is not just innate-genetic embodied dispositions. In the human realm, a biological phenomenon is the whole process of the conservation of life and this ineluctably includes a recurrent coupling with an eco-social medium through eco-cultural experiences. That is partly why I use the term 'bio-eco-social existence'. Following Maturana, I have proposed the concept of conversation as the human Cognitive way of living. Conversation, I have said, is a human phenomenon that embraces (and therefore synthesises) our bio-eco-social existence. So, I believe that the basic starting point to understanding love in biological terms is to see it as an emotion that is part and parcel of the human existence in conversations. As an emotion, love is embodied in the human dynamic autopoietic process, and as such, it has allowed human and non-human animals to maintain their life. Of course, love is not the only emotion present in the animal domain. Animals dynamically move within a large, complex and interrelated emotional spectrum, constituting different systemic behavioural domains in their ecological interactions, all of them essential to their dynamic ecological adaptation and conservation of organization. But, I think that love is a basic human disposition that configures ecological interactions that allow and enhance the emergence and conservation of human beings. Therefore, a more complete biological synthesis of love must also include environmental (socio-

[12] Kenrick, "A Dynamical Evolutionary View of Love."
[13] James F. Leckman et al., "A Biobehavioral Model of Attachment and Bonding," in *The New Psychology of Love*, ed. Robert J. Sternberg and Karin Weis (Yale University Press, 2006).

ecological) factors. It is mainly in this domain of interactions that love has become a biological necessity.

Emergence and Conservation of Socio-Ecological Love From a Biological Perspective

Maturana's 'Biology of Love'

Humberto Maturana asserts that love is the only emotional disposition (or 'domain of relational behaviours'[14]) that allows human recurrent interactions in which 'the other' is accepted as an authentic other 'without expectation, and that can be amplified and stabilized'. He defines love as the emotional body disposition (or the domain of those relational behaviours) through which the other arises as a legitimate other in coexistence with oneself'.[15]So, from the perspective of an observer, treating the other as a 'legitimate other in coexistence with oneself' appears as a respectful, cooperative and consensual phenomenon. From this standpoint, Maturana asserts that love materializes as a common biological 'preference for recurrent interaction'.

> [Love] constitutes a preference for recurrent interactions that result in some dimension of care by the lover for the loved one in a manner that restricts aggression. In other words, love, as a mechanism that generates recurrent interactions is, biologically, a basic source of socialization, and the form it adopts depends on the domain in which it takes place.[16]

Maturana goes even further and, like Sorokin, seems to suggest that love is expressed in more general and basic bio-ecological (or social) interactions.

> One would not feel inclined to call love or preference the biochemical "stickiness" between cells that makes them remain together during embryogenesis in the development of a

[14] Maturana argues that, because emotions are internal body dispositions, that is, they are dynamic body changes which belong to a domain different from the domain of the observer, we cannot see them directly. However, considering that the observer has access to the behavioural domain of a living being, what the observer connotes when he distinguishes emotions, 'is a domain of relational behaviours'. In other words, when we talk about emotions, we always refer to some domain of behaviours (such as, seeing, hearing, moving, thinking, reflecting, etc) that an animal or person may do, and we speak in terms of the 'kinds of doings that it may generate'. So, as Maturana explains, 'the different emotions or moods can be fully characterized in terms of the kinds of relational behaviours that they entail as a domain of actions'.

[15] Humberto Maturana, *El Sentido de lo Humano* (J. C. Sáez, 2005), 45-46; Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 223.

[16] Humberto Maturana, "Man and Society," in *Autopoiesis, Communication, and Society: The Theory of Autopoietic Systems in the Social Sciences* (Campus, 1980), 15-16.

> multicellular organism. Yet without this "intercellular stickiness" there would be no recurrence of cellular interactions that result in the generation of multicellular organism as a social system. ... love as a biological preference for recurrent interactions has no rational fundament, not even when we seem to be able to propose one in the linguistic domain. In this sense love is only an expression of a particular congruence in the dynamic structures of the lover and the loved, rooted in their biology as modern terrestrial living systems.[17]

In the human domain, this biological preference for interaction is unexceptional. In fact, it is essential for the constitution and conservation of humanness in an animal that exists through and in conversation. As Maturana asserts, love is an essential emotion for the emergence of both the social domain and the phenomenon of language which are fundamental to humanness. Let me briefly investigate this.

As reviewed in Chapter 1, Maturana and Varela explain that language occurs on the basis of a coordinated and consensual dynamics, or what they call, a social phenomenon— 'whenever two or more organisms interact recurrently'[18]. In this sense, language arises when there is recurrent consensual coordination between human beings that exist in a socially coordinated and cooperative domain. In other words, we all know that language is fundamentally a learned but not innate phenomenon, although we have the innate capacity to become languaging beings. As a learned cooperative and consensual phenomenon which takes place in the dynamics of interaction between human beings and between them and their natural environments, language is, and depends on, social interactions.

A social phenomenon is intrinsically part of the biology of humanness. Biologically, it is a recurrent structural or embodied correspondence between two or more individuals, which, from the perspective of an observer appears as a 'consensual coordination of actions or behaviours'. As pointed in Chapter 1, this embodied correspondence between living beings is explained by Maturana and Varela with the systemic notion of 'structural coupling', which to recall, means 'a history of recurrent interactions leading to the structural congruence between two -or more- systems'. In a structural coupling phenomenon, the interaction between living systems cannot *define* the structural changes in the systems but only *trigger* structural internal changes.

[17] Ibid.
[18] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*, 206.

Therefore, biologically, social phenomena belong to the domain of structural coupling in which two or more living systems mutually and recurrently trigger structural changes between each other, configuring a particular social event. In this sense, linguistic interactions in general and language in particular, as social events, also take place in, and emerge from, the dynamics of structural coupling between two or more interacting individuals.

Considering the fundamental role of emotions both in the biological dynamics of the individual and in the constitution and conservation of social phenomena, and also being aware that human beings exist in language and that language arises as a social phenomenon, Maturana asserts that there must be an emotion that generates a 'biological stabilization of the structure of the interacting organisms' that gives rise to recurrent interactions, and that makes possible the constitution of social phenomena. As we have already seen, he claims that among human beings, the emotion that generates a preference for interaction, and therefore, operates as a basic stabilizing factor in the constitution of social systems is the phenomenon of love.[19] In other words, Maturana and Varela assert that social systems mainly arise through loving interactions. To put it in a negative way, they say that *without love there is no social phenomenon*.[20] Love is the fundamental emotion for the constitution of social phenomena and, therefore, the emergence of language. To be a social being is to be a loving being. Or more clearly, love must be a prime emotion present in the structural coupling between two or more human beings to allow the emergence of social phenomena.

The Origin of Humanness in the Biology of Love[21]

Maturana and Verden-Zöller assert that our loving existence is the result of a particular epigenetic trans-generational manner of living. This manner of living was mainly constituted, conserved and extended through a *social* and *recurrent* trans-generational phenomenon. They argue that the main basis of this social and recurrent manner of living is rooted in the mother/child relationship in complete mutual body acceptance in love. This would have been

[19] Maturana, in Humberto Maturana and Francisco J. Varela, *Autopoiesis and Cognition: The Realization of the Living* (Reidel, 1980), XXVI.
[20] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*.
[21] This is the title of a book written by Maturana and Verden-Zöller in 1993 and published in English in 2008

how we became loving and languaging animals. Before examining this more deeply, let me first briefly examine Maturana's perspective of evolution.

Maturana and Mpodozis suggest some 'unorthodox notions' which completely change the understanding of the mechanism that drives the process of evolution. They assert that the generative mechanism of evolution is what they call 'natural drift', so Darwin's 'natural selection' is just the consequence of natural drift. Natural drift (or more accurately structural drift) refers to the mechanism by which the individual conserves both its organization (autopoiesis) and its adaptation (structural coupling) in a dynamic changing present. In this sense, adaptation is understood as structural coupling. (Again, structural coupling is the history of recurrent interaction that leads to the structural correspondence or congruence between the dynamically changing organism and its dynamically changing medium that makes its life possible.) So, both the individual and its niche are in a dynamic operational congruence and both change congruently through mutual interaction, moment after moment. As they explain, this leads us to understand that there is no pre-defined or pre-existing medium from which only the best adapted organism survives, as has been assumed in modern evolutionary theory. Also, it leads to the understanding that 'what is conserved in the constitution of a lineage through reproduction is adaptation [or structural coupling]', that is, the realization and conservation, generation after generation, of a particular dynamic 'organism-niche relation' or 'manner of living'. An 'evolutionary path' is traced by a particular dynamic lineage (that is a particular manner of living through reproduction) which is defined, moment after moment, by a dynamic co-structural drift.[22]

> The evolutionary path that a lineage follows is the path of structural drift in which the organism-niche relation that defines it is conserved. So, if we wish to understand the origin and history of a lineage we must find the initial manner of living that began to be conserved as an organism-niche relation and the variations of that manner of living conserved as part of it in its natural drift, so that the member of that lineage live now as they live now.

[22] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*; Humberto Maturana and Jorge Mpodozis, "The Origin of Species by Means of Natural Drift," *Revista Chilena de Historia Natural* 73, no. 2 (2000); Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*.

> The present manner of living of the members of a lineage is the result of a history of natural drift, not an attainment of progressive improvement of its adaptation to a pre-existing medium.[23]

Therefore, and what is interesting for us in this chapter, is that *every lineage is constituted through an inter-generational dynamic manner of living*, that is, a particular manner of being adapted (structurally coupled) to the medium. So, Maturana claims that, if we are interested in the understanding of the constitution and conservation of our human lineage, we must appreciate the manner of living that was present in the ancestral Homo-family and that generated a particular dynamic lineage domain. (From now on, I will refer to the 'ancestral-family' as the first and complete manner of living that is characteristic of the lineage Homo).

From this standpoint, Maturana and Verden-Zöller assert that the 'Homo' lineage arose when, as a trans-generational phenomenon, language spontaneously arose and 'began to be conserved systematically as a manner of living in the learning of the children'. More accurately, Maturana and Verden-Zöller claim that 'what began, when humanness began in the transgenerational conservation of the braiding of languaging and emotioning, was [a spontaneous] living in conversation as the manner of living that defined our lineage'.[24]

What was the main emotion present in this manner of living in conversation? As we have seen, language is necessarily a *consensual* linguistic domain, so the 'manner of emotioning' present in the ancestral homo family was an emotioning of cooperation and consensus. This kind of emotioning had to be present in the constitution of a particular manner of living, from which, generation after generation, the homo lineage arose as a languaging being. Therefore, Maturana and Verden-Zöller argue that 'since *love* is the only emotional dynamics that gives rise to a living together in the close and sensual nearness in which a prolonged living together in recursive consensual coordination of doings can take place for the pleasure of it, *that emotioning* [present in the ancestral family] *must be love*'.[25] Therefore, although not the only one, the main emotion necessarily present in this manner of living in conversation (language-emotion interweaving) in

[23] Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 1-2; For more information see Maturana and Mpodozis, "The Origin of Species by Means of Natural Drift."
[24] Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 42.
[25] Ibid., 62.

cooperation, respect, trust and consensus, was love. So, through this particular manner of living in systemic conversation, from Maturana's point of view, humanness, arose as a fundamentally loving being.

In this sense, they point out that this manner of living in conversation spontaneously arose in the learning of children more than 3 million years ago. This must have happened in the ancestral-family, they assert, as a consequence of a manner of living as gatherers and occasional hunters; in the sharing of food between each other as a common event; in living in small groups; and through the male and female participation in the caring of children. These common events were a mode of living in cooperative relations, in the 'pleasure of doing things together'.[26]

The anthropologist Helen Fisher similarly argues that love (and particularly male-female romantic love) emerged from the practice of living in social groups that needed to socially collaborate between each other. As she explains, '[human ancestors] must have met and mixed singly or in small parties, eating and socializing intensely. These 'human ancestors knew who was family, friend, and foe'. Fisher explains that, once our ancestors started to leave the canopy of trees and began to walk around the landscape, their practical life changed drastically. With walking they could carry and collect weapons, their liberated hands allowed them to have better communication and the freeing of the mouth facilitated the articulation of words. In this sense, Fisher argues that life became more plastic but also much more complex, so social coordination and cooperation had to be intensified. Female life in particular, became really difficult: walking, collecting, and carrying objects was incompatible with the carrying and nursing of children. Therefore, pair-bonding became an essential practice, and with it 'monogamy', and therefore long term family relationships emerged.[27]

According to Maturana and Verden-Zöller, there is one social phenomenon that embraces all this social homo evolutionary processes and therefore is paramount for the understanding of the human manner of living, and that is intimacy. They assert that the social, cooperative manner of living based on 'trust and nearness' generated intimacy which they define as 'the pleasure and

[26] Ibid.
[27] Fisher, *Why We Love: The Nature and Chemistry of Romantic Love*, 127-135.

joy of trust and nearness in play in total mutual body acceptance'. This intimacy, they claim, had (and has) 'its origin in the mother/child relationship and its expansion in neoteny'.[28] That is, they point out that the human lineage emerged through the conservation of the progressive expansion of the mother/child relationship of mutual body acceptance, nearness, and mutual care in playfulness and total trust, in a manner that also involved the male, and progressively extended beyond the age of reproduction into the adult life in a neotenic evolutionary trend. In this sense, what seemed to happen was that the loving mother/child relationship of total mutual body acceptance was also extended beyond the period of rearing, thereby constituting the ancestral family, and ultimately our lineage. Eventually, living through loving conversations became a central manner of living present along every developmental period of a human being. [29]

> The conservation of the expansion of the mother/child dynamics of love and play relations into the adult living has been the operational reference for all the body and relational changes that eventually constituted us as the kind of animals that we are as human beings. ...It is as a result of this neotenic trend, we humans are cooperative animals dependent on love at all ages.[30]

Thus, Maturana and Verden-Zöller claim that the conservation and trend beyond neoteny of this manner of living in intimate playing in love generated the possibility for the spontaneous arising of language as an intergenerational phenomenon learned by children in the interaction with their mothers, and conclude that this 'constituted humanness as the basic loving manner of living that we live now'.[31]

This is the core of the suggestion offered by Maturana and Verden-Zöller. To sum up: the constitution and conservation of humanness was based on intimacy, trust, cooperation, and nearness. That is, our lineage was constituted by the conservation of the emotion of love that allowed the emergence, stabilization and amplification of a particular kind of living, a living in conversations. It was the primary emotion that guided the coexistence of our ancestors in small, near groups from which language arose as a manner of living. It was conserved generation after

[28] Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 58-60, 68.
[29] Ibid., 68-74.
[30] Ibid., 53.
[31] Ibid., 3-4.

generation in the learning of the children, and mainly rooted in the mother/child playing relationship in mutual total body acceptance. This mother/child relationship in love was extended beyond the period of rearing and childhood, thereby shaping the human lineage as a neotenic lineage.

Therefore, the mother/child relationship in-love is vital for the constitution of humanness. This implies not only the emergence of language, but also the capacity for self-consciousness and social-consciousness. As Verden-Zöller asserts, the child's loving intimacy with its mother in a dynamic of play in total body acceptance is the basis for the emergence of the child's self-acceptance and the respect of the other. In other words, the mother/child relationship is fundamental and primordial for the 'capacity of social co-existence' and this can only emerge 'in the biology of love'.[32] But also, the neotenic trend must have had a deep influence on the manner of living in the ancestral family as a whole. So, social-consciousness, although primordially shaped in the mother/child relationship, was (and still is) conserved and learned during the entire social life of an individual. In this sense, I think that the mother child/relationship can only be a relationship based on love, if the mother, and the whole adult society, also have a social-loving manner of living. Although the mother/child relationship in love is the root of the emergence of humanness, it is not a relationship on its own, isolated from the rest of the environment. In this sense, I think that, if we look at the mother/child relationship from an inter-generational perspective, we can see that there are uncountable factors that influence this relationship, such as, the social medium in which the mother exists, the relationship of her family with the rest of society and with the whole ecosystem, etc.

I now return to what I believe is one of the most important points in Maturana's contribution to the understanding of humanness. From the argument that we have briefly examined, love is explained as a biological phenomenon, a biological preference for recurrent interaction. *It is a necessary emotion for the constitution of social systems*. It is a primordial emotion for the constitution and conservation of our lineage that exists in language. It is the main emotion present

[32] Verden-Zöller, in Maturana and Verden-Zoller, *Amor y Juego: Fundamentos Olvidados de lo Humano,* 126.

in the mother/child relationship in total mutual body acceptance which is fundamental for the learning of language and the spontaneous arising of self-consciousness and social-consciousness. And, it is the main emotion present in the trend of neoteny to all human developmental ages, from birth to death. In this sense, Maturana and Verden-Zöller point out that the most appropriate denomination for our lineage is Homo *sapiens-amans*. *Sapiens* refers to our existence in language (the core of human intelligence). *Amans* refers to the main emotion that generates and conserves this lineage.[33]

***

The biology of love developed by Maturana implies a new holistic manner that greatly contributes to our understanding of humanness as loving beings. It also gives important biological and epistemological clues for a better understanding of the current crises that we are facing today, mainly through the understanding of the necessary social dynamics of intimacy, trust and play present in a cooperative manner of living.

However, I think that Maturana and Verden-Zöller, although very aware of the human participation in Nature, have not explicitly made a truly holistic ecological link which would eliminate the dangerous human-Nature dualism—namely, the human–Nature reunification through the biology of love. Their argument for the origin and conservation of humanness is centred in the inter-human social realm. They generate, I believe, an explanation that, strictly speaking, is still incomplete and anthropocentric in ecological terms, in a way that does not fully consider the important human relationship with other living organisms. Love, as a 'biological preference for recurrent interaction', is not only present and expanded in human-social relations. It transcends the human social domain, embracing also more basic human ecological relationships with other living beings and ecological components and flows. As we have seen in a previous chapter, our emotioning is present in every relational domain, such as our relations with our relatives, or a man walking in the company of a dog, or a hiker and the entire mountain that emerges in her journey. So, I believe that there is another fundamental component in this

[33] Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 78.

phenomenon (the emergence of loving-languaging-humanness), which is our participation in a major ecological environment—the vital human ecological interactions with other living beings and different components of the environment that emerge through the praxis of our living. Therefore, I think that our participation and membership in the biosphere in which we exist and co-exist is *also vital* for the constitution and conservation of humanness as a loving being.

In other words, from a recurrent-intergenerational-evolutionary perspective, I believe that the basis of the origin of humanness as a loving being simultaneously relies on both the social domain of interaction between human beings, and the respectful and cooperative interaction between human beings and their natural medium. From an interdependent socio-ecological perspective, a social interaction between human beings is necessarily ecological, and it may be the most important ecological interaction for the emergence of language and self-consciousness. On the one hand, we have seen that, as a socio-learned event, language and self-consciousness cannot arise without living with other human beings. Our socio-cultural existence 'shapes' our way of seeing and interacting with other human and non-human creatures. But, on the other hand, our ecological interactions with other components (living and non-living) are also fundamental. They continually trigger changes in our emotioning, thereby, changing the manner we see, reflect, hear and, by extension, the manner we participate in our socio-cultural dynamics.

So, I would like to introduce another biological hypothesis that will allow me, I believe, to generate a holistic perspective of the phenomenon of love present in human beings from a biological perspective. This is the notion of Biophilia: the essential human love for the non-human living and non-living members of our socio-ecological niches.

Wilson's Biophilia

In the first page of his book *Biophilia: the Human Bond to Other Species*, Edward O. Wilson implicitly invites us to reconsider the fascinating and vital human participation in, and interdependence with, the natural world. 'From infancy', he says, 'we concentrate happily on ourselves and other organisms. We learn to distinguish life from the inanimate and move toward

it like moths to a porch light'[34]. Combining his wonderful, empirical, natural experiences and his biological knowledge, he 'draws' an 'optimistic conclusion': 'to the degree that we come to understand other organisms, we will place greater value on them, and on ourselves'.[35] This conclusion, although simple and readily apparent at a first reading, is profound and important for the understanding of humanness. Two interwoven ideas are important here: first, that through the cultivation of an intimate relationship with other beings we know ourselves and our wildness; and second, and through it, we become aware that we are part of Nature.

Literally speaking, biophilia means the love of life or 'living nature'[36]. Although I am not going to examine and discuss the use of the Aristotelian *philia* in this chapter[37], it is important to mention that, in a very general context, it mainly connotes 'friendship love'. In this sense, philia not only means *love*, but also embraces, through the concept of friendship, the notion of *relationship with others*. I believe this is a central point in the idea behind the notion of biophilia. Indeed, both Wilson and the authors who have contributed to the formulation of biophilia, propose that 'love' of Nature is materialized in a human 'tendency' or a 'need' to 'focus on' or 'affiliate' with Nature. Therefore, this notion invites us to reconsider the fundamental relationship between the emotion of love (and all emotions in general) and the socio-ecological network of interactions—namely, the whole biosphere in which we live.

There are four important aspects that we need to examine in order to understand the main perspective of the Biophilia Hypothesis[38], all of them illustrated in its name and in one of Wilson's definitions of the term: 'the innate tendency to focus on life and life like processes'.[39]

First, despite the significant contribution of both theoretical and empirical research on biophilia, the complexity of the subject itself and its implications in almost every human domain (from the biological to the socio-cultural and spiritual realms) inevitably transcends the scope of any

[34] Wilson, *Biophilia*, 1.
[35] Ibid.
[36] Michael E. Soulé, "Biophilia: Unanswered Questions," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993).
[37] For an examination of Aristotelian *philia*, see Chapter 4
[38] Wilson, *Biophilia*; Stephen R. Kellert and Edward O. Wilson, eds., *The Biophilia Hypothesis* (Island Press, 1993).
[39] Wilson, *Biophilia*, 31.

research that could be done on this subject. In this sense, biophilia has been understood and presented as a hypothesis. The authors of the *Biophilia Hypothesis* not only agree about the complexity and 'richness' of the subject and the impossibility of offering a 'definite "proof"', but also, because of this, they assert that the reason why it is an hypothesis is based on the challenge to just 'legitimize and stimulate future inquiry into this critical element of the human condition'. In this sense, it seems that the biophilia hypothesis is just a new eco-cultural conversation about an ancient human relationship with the natural world. In general terms, I think that this eco-cultural conversation inevitably occurs in its own present and, wanted or not, emerges from a human systemic and continuous process of question-answer-question rather than on the generation of 'the proof' or a final and unique point of view. That is, the conversation about biophilia seems to be part of an unremitting human wondering about and wandering with Nature. The human-Nature relationship is a key ancient question with no definite answer mainly due to its ecological and cultural dependency. As seen in Chapter 1, in Western, historical terms however, from the ancient Greeks to Modernity, the *main* approach to this topic (although not the only one) has been the separation of humans from Nature. In opposition to this mainstream approach, and considering the eco-cultural crises that we are facing, I believe that, the main aim of the Biophilia Hypothesis is to be a part of an intentional and massive cultural turning point focused on the human-nature reconnection, 'legitimizing' the human participation in and interdependency with the whole biosphere. In this sense, as an eco-cultural explanation, and based on the current eco-cultural crises that we confront today, this chapter is part of this human wondering, and therefore will hopefully contribute to this *urgent* conversation.

Second, as a conversation, biophilia is a human emotional disposition, a manner of living. A common point of view between Maturana and Wilson, and their scientific starting point, is that love/biophilia is an emotion. I have already examined that, as an emotion, love is a body disposition to action (or a self-organizing intention in Freeman's' terms) that guides our behaviours. Wilson has developed a similar path. As Milton suggests, although biophilia has been explained mainly in a behavioural domain, that is, 'to describe ways in which people behave towards nature, its strongest connotations are emotional, the assumption being that behaviour

expresses emotion'.[40] So, through the same perspective about emotions and the evocation of them, although without offering a definition of them, Wilson asserts that biophilia is 'the innately *emotional* affiliation of human beings to other living organisms'.[41] (In the definition that we have seen before he uses the word 'tendency', focusing more on a behavioural domain). Thus, this emotional 'tendency' to 'affiliate' with life and life like-processes also resonates with Maturana's definition of love as a biological 'preference to recurrent interactions'.

Third, the fact that biophilia is presented as a human 'focus on' or 'affiliation' to Nature leads Wilson to suggest that it also goes beyond the emotion of love in particular, thereby including 'several emotional spectra: from attraction to aversion, from awe to indifference, from peacefulness to fear-driven anxiety'.[42] From this standpoint, biophilia is seen as a concept that synthesises many of the emotions that arise from, and guide, the human ecological interaction with other living beings and 'life-like processes'. Biophilia also embraces the 'negative' interactions with Nature[43]: 'antagonistic and even adversarial relationships to nature… can be regarded as an element of biophilia'.[44] On the one hand, this explanation seems plausible because it attempts to overcome a cultural tendency to categorise human behaviour into a dualism of 'positive' and 'negative'. It reconnects the human dependency on, and participation in, the biosphere through human emotioning as a whole organic process—that is, what we have seen as 'conversation'. On the other hand, I shall argue later that biophilia, although part of the human process of conversing through its participation in Nature, should still be explained as a way of conversing directed by the emotion of love.

Four, the term '*innate*' present in the definition of biophilia, suggests that it is a phenomenon that is rooted in the very nature of human beings. But, Wilson goes beyond this and tries to join the innate or genetic domain with the cultural domain. He says: 'From the scant evidence concerning its nature, biophilia is not a single instinct but a complex of learning rules'. Then he asserts that

[40] Kay Milton, *Loving Nature: Towards an Ecology of Emotion* (Routledge, 2002), 60.
[41] Edward O. Wilson, "Biophilia and the Conservation Ethic," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993), 31.
[42] Ibid.
[43] Stephen R. Kellert, "The Biological Basis for Human Values of Nature," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993), 42.
[44] Kellert, in Kellert and Wilson, *The Biophilia Hypothesis*, 22.

'culture was elaborated under the influence of hereditary learning propensities while the genes prescribing the propensities were spread by natural selection in a cultural context'.[45] So, on the one hand, because biophilia is innate in human beings, Wilson points out that 'the biophilic learning rules are not replaced by modern versions equally well adapted to artefacts. Instead, they persist from generation to generation.....The significance of biophilia in human biology is potentially profound, even if it exists solely as weak learning rules'[46] In other words, we, human beings, in physiological and developmental terms, are biologically dependant on our affiliation to Nature. The fact that biophilia is innate suggests that it must be present in every human being at least as very 'weak learning rules', mainly because something that evolved during millions of years of evolution cannot be 'erased in a few thousand years'. On the other hand, although there is a genetic-cultural interaction explicitly reflected here, it seems that Wilson is still thinking from a traditional Natural Selection perspective where the 'learning rules' are mainly genetically compelled; that our genes compulsorily expand their force in the cultural domain, prescribing learning propensities. Although this has been genetically proved, it is not very clear what would have been the role of the manner of living (i.e. of the cultural part of evolution) in the emergence and conservation of this 'innate' human affiliation to Nature. In other words, although Wilson asserts that 'a certain genotype makes a behavioural response more likely', implicitly accepting the role of environmental factors and that biophilia is not behaviourally fixed, he does not clearly explain the degrees of diversity of biophilic behaviours through cultural dynamics. Kay Milton comments on this point saying that 'Wilson's answer to this is similar to those given by advocates of domain-specific cognitive modules [in which it seems that they 'deny the cultural and individual variation that is known to exist'], that biophilia, rather than have particular emotional responses, predisposes us to learn or to resist learning such responses'.[47] Commenting on one of the functional proofs that Wilson uses to test biophilia as an innate phenomenon, Milton argues that, although very common in some cultures, people 'do not necessary fear snakes in general'. In other words, she asserts that our behaviour and emotioning to nature, rather than being strictly compelled by genetic predispositions, arose from our cultural learning experiences

[45] Wilson, "Biophilia and the Conservation Ethic," 31-32.
[46] Ibid.
[47] Milton, *Loving Nature: Towards an Ecology of Emotion*, 62.

which are 'biased by our nature', so it would be easier to develop certain kinds of behaviours or emotionings, such as, the fear of snakes.[48] Milton adopts a similar position to that which we have seen earlier about the radical importance of the manner of living of animals in general for the constitution of a lineage. This also suggests that, although we have some genetic or biological basis, it is just the starting point of a journey, or more precisely, an ontogeny, which, in human beings, takes place mainly in an eco- cultural domain of conversations. That is, although our genetic composition tends to impel us in some directions, they emerge and are conserved during the eco-cultural process of our lives. So, to be born like a loving/biophilic being does not mean that we will be loving/biophilic beings. On the contrary, I think that it is paramount to cultivate our human loving bodyhood through a loving manner of living. I think that both Wilson and Milton would agree with this. The difference here is about the degree of influence attached to innate and environmental (manner of living) domains in the evolutionary-and-historical emergence and conservation of biophilia.

The Evolutionary Reasons for Biophilia

Wilson's and Ulrich's perspectives on biophilia seem to suggest that biophilia must be primarily demonstrated and tested through functional, evolutionary methods. Based on the biologist Balaji Mundkur, Wilson suggests that a plausible way to demonstrate biophilia would be by its 'ophidian version', that is, for example, the human phobia of snakes (and also 'dogs, spiders, closed spaces, running water, and heights'). He argues that 'constant exposure through evolutionary time to the malign influence of snakes…[is] encoded by natural selection as a hereditary aversion and fascination...'[49] In general, and paradoxically, this biophilic response is called 'biophobia'.[50] With this functional vision, a progressive perspective of evolution seems to be implicit. Wilson asserts that 'a certain genotype makes a behavioural response more likely' and that that 'response enhances survival and reproductive fitness...'[51] Similarly, based on several

[48] Ibid.
[49] Wilson, "Biophilia and the Conservation Ethic," 34.
[50] Roger S. Ulrich, "Biophilia, Biophobia, and Natural Landscapes," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993), 76; David W Orr, "Love it or Lose it: The Coming Biophilia Revolution," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993).
[51] Wilson, "Biophilia and the Conservation Ethic," 33.

psychological, clinical, behaviour-genetic and evolutionary researches about the human innate response towards certain environmental conditions, Ulrich develops a 'functional-evolutionary' argument for the existence of biophobia and biophilia. He says, for example, that 'vicarious conditions', such as seeing a spider or a rat, or just 'receiving information regarding a possible aversive consequence…of exposure to [an] object', or 'simply observing another person's fearful or strongly aversive reaction…' is enough to condition the emergence of 'fear/aversive responses'.[52] He also suggests that certain environmental conditions, such as 'spatially restricted settings that might contain hidden dangers and constrain opportunities to escape', generates general biological reactions of dislike.[53] Further, he argues that there is some evidence that human beings innately prefer natural open environments, specifically savanna like settings, which would be consistent with the fact that the origin of humanness took place in the African savanna.[54] This might have evolved, among other reasons, because of the 'visual *depth/spaciousness* characteristic' of these environments, thereby, making it easier to avoid hidden threats. This would also suggest a reason why we tend to reject 'spatially restricted places',[55] or that we might prefer a table in a restaurant or a house with open views to the sea or the landscape.

These and other functional-evolutionary formulations and research outcomes are important for the demonstration that human emotioning is ineluctably attached to the environment. From a behavioural perspective of emotion[56], Ulrich concludes that some rewards and dangerous environmental factors during human evolution have generated both biophilic and biophobic human responses.[57] Following my review of emotion as a self-organizing phenomenon, it would be possible to assert that environmental factors deeply influence human behaviour by triggering

[52] Ulrich, "Biophilia, Biophobia, and Natural Landscapes," 79.
[53] Ibid., 81.
[54] Ibid., 89.
[55] Ibid.
[56] Ulrich's argument could be characterised as a behavioural vision in which emotions are related to the 'aboutness' of an environmental situation. We have seen that this kind of perspectives fail in understanding emotion as a self-organizing phenomenon that does not response to linear stimulus. The functional correlation between emotion response and environmental condition is an association done by an external observer and does not explain the biological mechanism of animal emotioning which is self-organizing.
[57] Ulrich, "Biophilia, Biophobia, and Natural Landscapes," 76.

emotional changes which eventually generate innate dispositions. In this sense, the biophilia hypothesis is contributing significantly to our understanding of the interweaving of the emotional-behavioural domains and the ecological participation in and 'affiliation' to Nature. Doing this, the biophilia hypothesis is a vital 'gift' to the understanding of humanness, in overcoming the human-Nature dichotomy and in generating an ethics with a plausible environmental base.

Nevertheless, I think that a functional-evolutionary approach to biophilia is neither the most appropriate form to explain it, nor the primary mode to test it. Biophilia, 'if it exists, and I believe it exists' should not be formulated and tested primarily based on a functional-evolutionary perspective.

In general terms, I believe that we are part of a culture that is in crisis, in part because of a popular, emphatic predilection to give purposeful-functional answers to every question that arises. It seems that everything needs to be proved by functional methods that validate 'functional phenomena' with clear 'purposes'. In this sense, as heirs of a *super logical* culture, we recurrently demand answers and explanations in which phenomena are explained through the assertion of predefined functional purposes. The modern evolutionary perspective is no exception to this. Modern Natural Selection is based on the existence of a predefined environment that continually selects the change of the individual. It seems that the same occurs with the genetic perspective of evolution in which the genetic constitution of an organism defines its way of existence and that must be adapted to a predefined environment. So, in order to explain evolution, modern evolutionary perspectives give purposeful and functional explanations in which an individual adapts itself, in a progressive manner, to the pre-existent environment. I think that the notion of progress and a predefined purpose towards perfection, which has been very common in our Western culture since the Socratic and Platonic philosophy and which has been exacerbated during Victorian and modern times, is more a cultural posture which generated a reductionism of the understanding of life processes.

The main problem of explaining the biophilia phenomenon in this way is that it can create a way of thinking that may reduce human love towards a utilitarian perspective which may finally lead to philosophies and attitudes of control and domination of Nature and the individual—namely, the antithesis of biophilia. It can lead us to seeing our relationship with Nature in instrumental terms. It could generate a perspective in which it is acceptable to say that we love (or affiliate to) Nature *because it is useful* to us only—e.g. to say that humans love savanna -like places *because* they are safe; or that people love dogs *because* they give them company; or that they love trees *because* they give fruit and wood; or ultimately that we love nature *because* it is at the service of humanness. I think that this perspective, based very much on the Platonic *eros* tradition, when seen alone and over-stressed, negates love, and so negates biophilia. Biophilia is something else, not just a functional-evolutionary response to value. All this potential incongruence is not, I would say, what Wilson and Ulrich are seeking with their hypothesis. In contrast, but aligned with their eco-ethical intentions, I think that biophilia (i.e., an innate human tendency to affiliate to Nature) simply emerged through an ongoing trustful and intimate relationship with Nature. I think therefore, that functional explanations of biophilia, although useful, are secondary. *A biological explanation of biophilia must be systemic, not functionally linear—or circular rather than linear causality.*

This alternative approach, I think, is not only appropriate for the formulation of biophilia, but also for its explanation and validation. I think that we can use an important 'hidden' biological explanation in Wilson's definition of biophilia as 'emotional affiliation' to the rest of Nature. Wilson explains:

> [Human history] began hundreds of thousands or millions of years ago with the origin of the genus *homo.* For more than 99 percent of human history people have lived in hunter-gatherer bands totally and *intimately* involved with other organisms. During this period of deep history, and still farther back, into paleohominid times, they depended on an exact *learned knowledge* of crucial aspects of natural history. ...In short, the brain evolved in a *biocentric* world, not in a machine-regulated world.[58]

[58] Wilson, "Biophilia and the Conservation Ethic," 32. Italics added.

There are two concepts in Wilson's words that form the basis for a more systemic explanation of biophilia: 'biocentric knowledge' and 'intimacy'.

We have seen that living beings exist in an ongoing structural congruence with their mediums (a phenomenon that Maturana and Varela define as 'structural coupling', and 'Natural Drift', in evolutionary terms). The organism and its medium mutually and dynamically trigger structural changes between each other. Both organism and medium necessarily 'co-exist' in a dynamic structural congruence and they change together, moment after moment, with the conservation of their organizations. So, human beings must be structurally coupled with their mediums in order to conserve their existence. In evolutionary terms, it is possible to assert that Wilson has added that human beings have been in an ongoing congruent interaction with their natural medium for millions of years. That is, this structural congruence happened in a 'biocentric' fashion. The human bodyhood evolved in a 'biocentric' environment—within and through *Nature*. Without Nature, human beings simply disappear. We are natural beings. We must be in continuous and congruent interaction with it: a natural, ongoing dance of mutual co-existence and change. This is so apparent and simple that we continually forget it in our rational discourses.

We have seen that the ongoing human capacity to maintain life is ultimately a Cognitive capacity. It is to be able to continuously maintain the organization and adaptation in a recurrent changing environment. As Maturana and Varela assert, 'to live, is to know'.[59] It is the most important knowledge of all. So, it has been through this 'biocentric' process that we have got to know Nature, and through it, to know ourselves. Similarly, Paul Shepard argues that our ancestors were 'native to their place'; through an ongoing knowledge of the details of Nature, of its wilderness, human beings were (and are) able to know its wilderness. Wilderness, as a medium-inner place was the context in which humanness arose.

> [Prehistoric humans] possessed a detailed knowledge that was passed on from generation to generation by oral tradition through myths—stories that framed their beliefs in the context of ancestors and the landscape of the natural world. They lived within a 'sacred geography' that

[59] Maturana and Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding*.

> consisted of a complex knowledge of place, terrain, and plants and animals embedded in a phenology[60] of seasonal cycles.[61]
>
> We think of wilderness as a place, a vast inhabited home of wild things. It is also another kind of place. It is that genetic aspect of ourselves that spatially occupies every body and every cell. To 'go into' that wilderness is something we do constantly. We are immersed in it. Our consciousness and our culture buzz around it like tiny lights, not illuminating a great darkness but drawing energy that makes a self possible.[62]

In line with Wilson, I think that the only way to know the natural medium that makes possible one's life and therefore to know how to conserve one's life is through an 'intimate' relationship with the natural medium. Intimacy with the natural world implies close knowledge of its components and flows that congruently interact with oneself. Through an intimate relationship with the natural world, we cultivate our place, wilderness.

As we have seen, it is from this intimacy that both Wilson and Ulrich argue that biophilia and biophobia emerged in humanness. Intimate interactions with poison snakes, for instance, lead to biophobia, they argue. However, it would be sensible to ask the following: what made us establish 'intimate relationships in the first instance'? If an animal's behaviour is defined by emotional self-organized disposition, then we need to ask: what emotional disposition allows intimate relationship with the other, a relationship of co-existence? The psychologist Alan Miller defines intimacy as 'the wish [or desire] for a deep union in which one can share oneself with another without egoistic demands and manipulation. An intimate relationship is egalitarian, therefore, one in which there is no desire to dominate the other person or creature.'[63] For Miller, intimacy is an intrinsic aspect of human love. Intimacy is mainly about the pleasure of the near company of the other in which its legitimacy is fully respected. In the human domain, this emotional desire is the origin and result of an evolutionary history that constituted a manner of living that was based on intimate *co-operative* relations—that is, 'to operate together'. A

[60] Phenology is 'the study of cyclic and seasonal natural phenomena, especially in relation to climate and plant and animal life'. In "phenology". Oxford Dictionaries. April 2010. Oxford Dictionaries. April 2010. Oxford University Press. http://english.oxforddictionaries.com/view/entry/m_en_gb0625610 (accessed March 29, 2011).
[61] Paul Shepard, *Coming Home to the Pleistocene*, ed. Florence R. Shepard (Island Press, 1998), 7.
[62] Ibid., 132.
[63] Alan Miller, *Environmental Problem Solving: Psychosocial Barriers to Adaptive Change* (Springer, 2003), 25.

cooperative-intimate relationship does not intend to dominate or subordinate the other, nor is the other seen only from a utilitarian perspective. In this sense, *love is the root of intimacy*. That is, the core of biophilia is not only that close relationship with Nature generated biophilia, as argued by Wilson and Ulrich, but also that biophilia is a loving disposition that created the possibility to have these intimate relationships. This is what I mean when I say that biophilia is a systemic (sort of circular causality) phenomenon – a *'biocentric' intimate mode of knowledge which triggered a manner of living in love while, through loving, a biocentric intimate mode of knowledge became possible.* In other words, a human way of being structurally coupled to Nature has *always* involved, at least partially, a loving disposition, a disposition that 'originally' permitted the establishment of intimate relationships of co-existence. This is probably why Sorokin relates the notion of love with an ontological (or spiritual) 'force'—namely, an 'energy' that makes a whole; This is also probably why Maturana presents love as a basic biological phenomena that may have existed before the emergence of humans—namely, love as a 'biological preference for recurrent interaction'. So, could we understand 'loving-intimacy' as a systemic phenomenon in which the biology of love and the ontology of love are united—where the traditional 'creational' and 'evolutionary' dichotomy may be overcome? In this systemic view, love appears as a *creational force of life* that is developed through the *biological intimacy that life implies*…

Intimacy, as a loving phenomenon, is what unites Wilson's biophilia and Maturana's biology of love. Thus, I claim that the emotion of love, in biological terms, is an ecological-social phenomenon. Intimacy is fundamental for the emergence of language and the development of humanness as a social-loving being. Intimacy between human beings involves the 'pleasure of doing things together'—a cooperative manner of living necessary for the emergence of language. But, is this inter-human intimacy enough to explain human development? I think not. In many ways, we can observe in the ancestral family a full interdependence between social phenomena and intimacy with Nature[64]. The main cooperative social activities such as, gathering of food, hunting of animals, obtaining necessary timber for a fire, cooking and sharing of food, orally sharing and teaching the myth, the spirits and knowledge of Nature, walking in a wet forest, and

[64] Shepard, *Coming Home to the Pleistocene*.

resting near a river after a long journey, necessarily happened in a deeply congruent and intimate coupling with natural processes. In this sense, every social activity *arose from and in deep relations with Nature.* Intimacy with Nature is part of our nature. It seems to be a condition for the emergence and cultivation of social phenomena. But, inter-human social relationship is also part of our nature, and therefore, is also a condition for the emergence and cultivation of intimate relationships with the rest of Nature. Learning the art of intimacy with Nature also occurs through social relationship with parents, families and peers.

Thus, I claim that intimacy with Nature and intimacy in a human social environment are fundamentally interrelated and interdependent. In fact, I believe that they constitute a whole and belong to the same bio-ecological domain: the structural coupling of an individual to its medium. Their linguistic separation (which is not the same as distinction between culture and Nature, and which seemed to be a common practice in the ancestral family[65]) seems to lead to a potential loss of knowledge which is needed to conserve human presence on Earth. In summary, a social manner of living arose from an actively intimate relationship with Nature; and, simultaneously, intimate social lives generated ongoing, sustainable and congruent kinds of interactions with the rest of the natural world.

As we have seen, biophilia has been associated with many emotions—ultimately with any emotion that arises from intimate relationships with Nature. I have said that this is plausible because it recognizes that humanness exists in a complexity of different emotions and that all these emotions have been developed through a human's relationship with its medium. However, I disagree with Wilson that every human emotion is part of biophilia. I think that many emotions might emerge from biophilia (from intimate relationships) but love is the only emotion that allows the emergence and cultivation of intimate relationships—of biophilia. So, *I think that biophilia is not really biophilia when human existence in conversation happens in an emotion different from love*. This means, in accordance with Maturana, that conversing in love is what made us human beings. So, I think that my perspective on biophilia is now clear. Although I

[65] Paul Shepard, "On Animal Friends," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993), 276.

agree that human-Nature relationships embrace the entire human emotioning realm, I believe the emotion of love is the main emotion that was present in the emergence of the ancestral family in the conservation of a particular manner of living in conversation—in intimacy with the whole environment that they constituted through their participation in it. In other words, biophilia, as the biological 'human affiliation to life and life-like organisms' is constituted and explained by the necessary biological congruence that human beings have with the natural-medium that they constitute, mainly through a dynamic intimacy: a loving ecological interaction. This main loving manner of living was not only the main manner of relating to the rest of nature, but also, and by extension, the main manner of conserving human life on Earth.

Loss of Biophilia

We are part of a culture that has been moving along a path of natural destruction. How can we talk about intimacy with Nature, if we have no trust in Nature, if we have tried to manipulate it and subordinate it to our will? In this sense, to talk about intimacy with Nature, at least for me, is not easy. But, on the other hand, how is it possible that, as a member of the Western-European culture, I am talking and reflecting about intimacy with Nature if I, as part of the Western-European culture, have regularly been blind to it? I think that, although we are facing and participating in an eco-cultural path of destruction and self-destruction, there is *nostalgia* for the loss of the cultivation of biophilia, of being close to Nature. There is a desperate desire to recover a more congruent path of living, and to feel again that we are part of it. This reflection is not new. Indeed, I think that it always arises when human cultures live through conversations that go against our biology. This desperate desire and capacity to reflect on it, can be linked to Wilson's statement that biophilia is indeed profoundly rooted in our nature and that it is always present at least in a very 'weak' manner. I think that it is our biophilic emotioning which, although feeble and sporadic, is asking us to change our destructive mode of conversing. This nostalgia and desire to reconnect to Nature is another sign of our biological belonging to It. But, what are the consequences of losing biophilia? What does loss of biophilia mean?

We have seen that Wilson, Kellert and Ulrich assert that biophobia is part of biophilia. They assert that, from recurrent evolutionary interaction, biophobic patterns emerged. Ulrich relates

biophobia with an animal emotional disposition of 'strong fear' or 'defensive/ aversive'[66] behaviour'.[67] From this, it is also possible to assert that biophobia has emerged from a loving-intimate relationship with Nature. For example, through recurrent intimate interaction with snakes we have biologically come to fear them, and to avoid them whenever possible. In this sense, biophilia and biophobia contrast with each other in that the former is the cultivation of an intimate relationship and the latter is the avoidance of intimate relationships that have indeed emerged from intimate/*philic* relationships. As such, it could be said that biophobia 'can be regarded as an element of biophilia'. It is important however to clarify some points related to this. Biophobia has been related to the human destruction of Nature. Orr expands the notion of biophobia 'to active scorn for whatever is not man-made' and argues that tribes and cultures have starved and jeopardized their well-being because of biophobic behaviour.[68] However, this maybe partially incorrect. Fear and avoidance (i.e. the etymological meaning of phobia) do not necessarily emerge from or are associated with 'active scorn' or destruction. Biophobia is not synonymous with a feeling that Nature is unworthy of one's consideration. In contrast, as an element of biophilia, I think that biophobia is also synonymous with respect, which is a mode of biophilia. For example, to have arachnophobia does not mean having a feeling that spiders are worthless or to have a destructive attitude towards them. In contrast, biophobia, as an element of biophilia, is a mode of coexistence in which the spider, in spite of its poisonous bite, is respected as an autonomous being, in its full legitimacy. I can fear spiders (I really do), but still respect them. Thus, biophobia can be construed as part of a human disposition of respect towards biological diversity, towards millions of different modes of living that, although incompatible in some ways, have the same right to live. In more bio-spiritual terms, it is a human respect and worship towards the life-death dynamics of Nature—that when the ancestral family hunted an animal they did it with respect and worship—that the spider also has the right to kill to survive and bite in order to defend itself. Respectfulness, I shall argue in the following chapters, is part and parcel of love. Thus, respect is a basic loving element in biophobia, and as such, part of

[66] Ulrich definition of biophobia is correct in etymological terms. *phobia* is a derivate of *phobos* which means 'fear', 'aversion'.
[67] Ulrich, "Biophilia, Biophobia, and Natural Landscapes," 76, 78.
[68] Orr, "Love it or Lose it: The Coming Biophilia Revolution," 416, 417.

biophilia. However, I think that biophobia is not a part of biophilia when ‘fear’ and ‘avoidance’ leads to emotions of aggression and arrogance.

Also, I think that biophilia (i.e. cultivation of recurrent intimate interactions) and biophobia (i.e. avoidance of recurrent interactions that emerges from biophilia) must be dynamically in bio-ecological equilibrium. This equilibrium basically maintains a deep recurrent interaction with Nature in order to know Nature and co-exist with different natural components, from the beneficial to the harmful. This means that, if biophobia greatly replaces biophilia, then we lose connection with the rest of Nature, and thereby we lose the knowledge needed for a harmonious life-style and ultimately, for survival.

So, I think that many ancestral tribes disappeared not only because of the imbalance of an increase in biophobia, but also because of the loss of biophilia and biophobia together—namely, through conversations based on aggressive and arrogant emotional dispositions—that is, when recurrent intimate relationships with Nature are strongly minimised; when the respect for Nature is lost; when fear and aversion are not present anymore because we arrogantly feel that Nature is at our service; and when, through aggression (and even hate), we destroy socio-ecological environments. In other words, I believe that, if the human members of a society lose their biophilia (the love of Nature), they would strongly limit their structural coupling with their medium. They would then lose ecological knowledge, and thereby behave in eco-social devastation and ultimately in self-destruction.

A clear example of the loss of biophilia is the well known story of the original human inhabitants of Easter Island. This story has often been used as a concrete example of ecological catastrophe, but, what was the real cause of this ecological crisis? We know that, mainly because of high inter-societal competition and conflicts (clearly illustrated in the competitive production of *moais*), the inhabitants of the island started a brutal process of deforestation which finally triggered a terrible eco-social crisis. This has been the main functional argument to explain this catastrophic event. However, I think that its main cause was that the inhabitants of the island were ‘blind’ to the acceptance of the legitimate existence of other creatures, humans and non-

humans. To be blind is obviously the inability to see, and to see the other's legitimacy is the basis of biophilia. So I think that because of their loss of biophilia, both in their inter-social relationships and inter-species interactions, and their inability to reconsider, or reflect about, their destructive behaviours, this civilization was finally trapped in the middle of the ocean without food and timber to build boats. Tragically, most of the inhabitants died of starvation or cannibalism. In other words, because they lost their biophilia, they strongly restricted and damaged their ecological coupling with their medium, and started to die.

Towards a More Holistic Synthesis of Human Love in Biological Terms

As I have suggested, the circular causality of intimacy and love in the human domain, is holistically explained when understood as a socio-ecological phenomenon. The complementation between Maturana's biology of love and Wilson's biophilia appears as a plausible explanation of this. So, aligned with Maturana and Wilson, I think that we are loving-biophilic beings. Both perspectives are interrelated. So, this more holistic synthesis answers the main question of this chapter, why do we love? We love, or at least we have the capacity to love, because love was (and is) the core for the emergence and conservation of human socio-ecologically intimate relationships. Intimacy is a fundamental biological requirement for the conservation of the structural congruence of human beings and their socio-ecological medium. As I will argue in Chapter 5, intimacy is an essential aspect of the human conscious practice of making and feeling at *home* in the world. I will argue that *homing*, is the essence of intimacy in social and ecological terms, and is therefore the other bio-socio-ecological bedrock of human ecology.

To sum up: We have seen that Maturana and Verden-Zöller assert that the particular manner of living from which humanness arose as a languaging self-conscious being is a living in conversations mainly rooted in the emotion of love. This manner of living, they assert, is rooted in the mutual acceptance of social coexistence, in the intimate and long sexual nearness, in the sharing of food, in co-living in small groups, and in the male cooperation in the raising of children. All this happened, as we have seen, as part of the trend of neoteny across all human developmental phases—from birth to death. We have also seen that this neotenic trend is

basically rooted in the mother-child relationship in mutual body acceptance in love in the pleasure of playing. Therefore, this manner of living, they explain, was what constituted humanness as loving conversing beings. Nevertheless, although Maturana and Verden-Zöller are aware that humanness is part of a major biosphere, I think they have failed to explicitly introduce the role of our biophilic interaction with other creatures in the constitution and conservation of this manner of living as a primordial aspect of our humanness. The biophilia hypothesis offers a perspective for the demonstration of the vital human need to relate to the rest of the natural world. As a fundamental human ecological congruence of intimacy with Nature, biophilia is a common and basic bio-eco-social event. Social relationships are intrinsically interwoven with other human interactions with the rest of Nature, constituting one whole human ecological domain. Furthermore, understanding biophobia as a human respectful disposition towards biological diversity and its potential incompatibilities, allows for the expansion of the understanding of the emotion of love to a disposition that does not necessarily imply intimate relationships, although it emerges from it. In summary, we can say that 'Homo *sapiens-amans*' is necessarily a 'biophilic' individual.

My main conclusion of this chapter is that Self-love, love for other human beings, and the love of other non-human beings and 'life-like processes', are not only interdependent, but they are actually the same indivisible phenomenon of human loving. A human individual is a socio-ecological individual and the main emotion present in its bio-socio-ecological conservation of existence is love. This is the other apparent phenomenon that we recurrently forget.

Natural Consciousness

This leads me to a second (although less apparent) conclusion. The interdependence between self-consciousness (and self-respect, self-esteem), social consciousness, and ecological consciousness is articulated in the individual interactions with other humans, non-human beings and the whole natural setting. I think that a coherent starting point is to understand that they constitute a unique holistic state of consciousness that I would like to call *natural consciousness*. (I will also call it ecological consciousness). Natural consciousness is a manner of looking; it is a human disposition that is aware of the interconnection and interdependency between oneself and

human and non-human 'others'. How does natural consciousness emerge? – briefly, primarily through human existence in a loving-intimate ecological and social medium. To fully address the relationship between the consciousness of the self, social consciousness and ecological consciousness is beyond the scope of this thesis. However, it can be briefly illustrated by referring to children's need for socio-ecological interaction for the development of a more integrated and harmonious life.

As we have seen, Maturana and Verden-Zöller assert that human beings are loving beings because it is the main emotion present in the constitution and conservation of inter-human *social* phenomena. They assert that language and self-consciousness spontaneously arise in a loving social environment, mainly through the learning of the child in the mother-child relational dynamics of play. In this sense, Verden-Zöller, after decades of empirical studies on the mother-child relationship, concludes that the emergence of self-distinction, self-consciousness, and self-respect of a child is vitally connected with the intimate relationship with the mother in mutual body acceptance.[69] She asserts that self-consciousness arises in the child through the mother/child relationship and it is fundamentally related to the consciousness of the body. Accordingly, if the bodyhood of a child is negated in the mother- child relationship, there is an 'interruption' in the child's development of the 'I', in the consciousness of the body and in self-acceptance. Also, Verden-Zöller argues that self-acceptance and self-respect are intrinsically related to a dynamic of mutual acceptance and respect between the child and the mother. That is, mutual acceptance cannot arise if there is no self-acceptance and self-respect, and, at the same time, self-acceptance and self-respect cannot spontaneously arise and be conserved in the child if there is no mutual body acceptance in the relationship with the mother.[70]

Thus, from the perspective of the child, alongside its development of self-consciousness, self-acceptance and self-respect through the intimate relationship of total mutual body acceptance with the mother, the mother arises as another 'I'. That is, the social praxis starts in the child as a relationship of mutual acceptance (or love) with the mother. In other words, the child's

[69] Verden-Zöller, In Maturana and Verden-Zoller, *Amor y Juego: Fundamentos Olvidados de lo Humano*, 126.
[70] Ibid., 126-129.

development of social consciousness and the acceptance of the other as a legitimate other are fundamentally related to body consciousness, self-respect and self-acceptance.[71] It seems therefore that the emergence and cultivation of self-love and the love of the other are inexorably connected.

Psychoanalytic psychotherapist Sue Gerhardt, after many years of working with disturbed mother/child relationships, seems to reaffirm the work of Verden- Zöller. She argues that early social experiences greatly impact on the psychological development of a child.[72] The social capacities of a child 'are mostly potential' but not defined at birth. The social part of the brain and the basic system that manages emotion, she argues, is not developed at birth, but rapidly emerges during the first two years of the child. So, the socio-emotional path of a person is well 'trodden'' in these early years.[73] The brain of a baby is 'experience dependant': 'the kind of brain that each baby develops is the brain that comes out from his or her particular experiences with people'.[74] In adaptive and ontogenic terms this is essential for a coherent structural coupling with the particular niche in which the baby exists. In negative terms, Gerhardt argues that antisocial early experience might deeply impact on the socio-emotional character of the child: 'if you live in a highly dangerous environment, it may be essential to survival to have a sensitive stress response; if you live with a hostile parent, it makes sense instinctively to learn to keep a tactful distance'. Situations like this may become the source of different psychopathologies in adulthood. So, she concludes that the socio-emotional biological systems in the brain 'develop and function better or worse depending on the nature of…early social experiences'[75], so 'appropriate one-to-one social experience with a caring adult', such as positive look and smiling, is essential for good development of the social brain.[76]

The mother's womb is the first *nest* of a human being. As a loving-biophilic being, the child is born implicitly trusting that there will be a world that will love him. The first eco-social nest, we

[71] Ibid., 126-131.
[72] Sue Gerhardt, *Why Love Matters: How Affection Shapes a Baby's Brain* (Routledge, 2004), 19.
[73] Ibid., 85.
[74] Ibid., 38.
[75] Ibid., 85-86.
[76] Ibid., 38-41.

have seen, is the mother. The mother-child relationship is a keystone in the child's generation of, and participation in its world. As Maturana comments, one of the findings of Verden-Zöller is that 'the playfulness of the child in his or her mother-child relationship becomes the operational-relational fundament for the different worlds that he or she generates along his or her whole life'.[77] From this relationship the child starts its journey—an adventure—of continuously constructing its nest while being coupled with its socio-ecological medium—namely, he starts his own *homing* process (as I shall explore in the next section of this thesis). Step by step, without breaking its connection with what is known[78], without separating itself from its actual nest, the child makes its world; it smells, touches, eats, observes and puts names to the different things that it perceives and associates with. In this process, interaction with its parents and relatives is essential. It is the basis of the child's social humanity. Nevertheless, as I have repeatedly commented in this essay, inter-human relations, especially the mother-father/child relationships and their social life around their families, although essential, are not the sole environment in which the parents and the child exist. In the child's journey, interaction with other non-human beings and non-living elements and flows is not only unavoidable but essential for its ongoing development. In the compilation of psychological, sociocultural and evolutionary investigations of children and Nature relationships, Kellert et al. conclude that 'direct and indirect experience of nature has been and may possibly remain a critical component in human physical, emotional, intellectual, and even moral development'.[79]As a natural being, a child inserts himself into the land, and begins to cultivate a relationship with different natural beings. The natural history writers Gary Nabhan and Stephen Trimble explain that during the first six years of life, children construct their 'sense of competence'; children's 'bedrock emotional security', their trust, is developed during these years. In this sense they comment: 'by forging connections with plants, animals, and land, by finding ways to experience some relationship to the Earth, individuals can gain a sense of worth. Herein lies security'.[80] They assert that the relationship with the natural

[77] Maturana in, Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 3.
[78] Gary Paul Nabhan and Stephen Trimble, *The Geography of Childhood* (Beacon Press, 1994), 22.
[79] Kellert, in Peter H. Kahn and Stephen R. Kellert, eds., *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations* (MIT Press, 2002), viii.
[80] Nabhan and Trimble, *The Geography of Childhood*, 22.

world is unique because it 'does not judge' but just 'exists'. This constitutes an important basis for the development of self-esteem and ultimately for the development of identity.

Several authors explain that the emergence of child-nature relationships constitute great opportunities to develop self-care (and self-esteem) interwoven with the care of other beings. The contributors to the biophilia hypothesis have helped in the generation of a more holistic synthesis of human love. The work of Stephen R. Kellert is particularly important for the understanding of the role of Nature in the constitution and conservation of humanity as a loving being. As he comments,

> Kinship and affection for the natural world have been critical in human evolution. In this case, they emerge as a basis for people's emotional maturation and development. ... This attitude toward nature focuses above all on the opportunities for emotional bonding and companionship—a connection so intense it sometimes engenders feelings of love. The orbit of human fellowship is extended to incorporate other creatures and landscapes into the intimacy of the human experience.[81]

Kellert focuses his argument about the emotional (and love) interdependence of self-respect, self-esteem, and social and ecological bonding mainly in human-animal relations and companionships. However, he suggests that 'a degree of emotional connection can occur with many aspects of nature'. Kellert asserts that 'caring for other creatures and nature can be a highly effective way of expressing and receiving affection, intimacy and companionship' In this sense, he argues that our relationship to Nature in general, and companion animals in particular, plays an important role in both human sociability, and the enhancement of self-esteem and self-respect. He claims that humans generated an 'inclination to form close ties with nature, in part, because of the benefits of increased sociability, cooperation, and affiliation'. Also, he points out that 'caring for animals and other aspects of nature may provide opportunities for feeling wanted, valued and special'.[82] Similarly, in research on children-animal relationships, psychologists Olin Myers and Carol Saunders explain that animals are so fascinating [for children because] they are highly

[81] Stephen R. Kellert, *Kinship to Mastery: Biophilia in Human Evolution and Development* (Island Press, 1997), 3.
[82] Kellert, *Kinship to Mastery: Biophilia in Human Evolution and Development*; See also, Stephen R. Kellert, "Experiencing Nature: Affective, Cognitive, and Evaluative Development in Children," in *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, ed. Peter H. Kahn and Stephen R. Kellert (MIT Press, 2002).

responsive and offer many dynamic opportunities for interaction. [Children] are social creatures, and animals appeal to [their] propensity to interact socially'.[83] They assert that, in the child-animal relationship (especially companion animals), children develop high social responsiveness and emotional attachment to them and that this 'has close links with cognitive, emotional, and moral development'. They conclude that direct contact with animals 'is the stating point for natural care': 'caring for animals in these ways extends with development beyond animals to species, ecosystems, and nature broadly'.[84]

Kellert also asserts that this intimate relationship with Nature and its link with 'sociability' and self-respect, 'self-confidence' and 'self-esteem', although they accrue under normal human social environments, become particularly important in situations of 'mental and physical stress and disorders'[85] As he, comments, the connection between self-respect and intimate relations with nature, specifically companion animals, has been used and proved in 'pet-facilitated psychotherapy'. These therapies have helped to 'transform mental patients from "irresponsible, dependent psychological invalids into self-respecting, responsible individuals"'.[86] He also comments on the particular contribution of the doctors Aaron Katcher and Alan Beck who have developed research which demonstrates the healing power of nature in mental and physical disorders. They have conducted a large study of children with attention deficit disorder in which, after 6 months of outdoor experiences and animal care, more than 80 percent of them 'experienced substantially reduced symptoms, including greater impulse control, enhanced attention, and improved speech and emotional behaviour'[87]. As these doctors point out, 'if the loving devotion, the soft touch, the constant companionship, the attentive eye and the uncritical ear of the pet are so attractive to so many of us, they should be even more important for those who have been wounded by others or deprived of the comfort that friends, family and children

[83] Olin Eugene Myers and Carol D. Saunders, "Animals as Links toward Developing Caring Relationships with the Natural World," in *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, ed. Peter H. Kahn and Stephen R. Kellert (MIT Press, 2002), 153.
[84] Ibid., 172-173.
[85] Kellert, *Kinship to Mastery: Biophilia in Human Evolution and Development*, 115.
[86] Ibid.
[87] Ibid., 116.

bring'. [88] The healing power of nature is not only present with companion animals. Human intimate relations with other creatures can be described in numerous cases, from the caring of an indoor plant to a walking experience in the deep rain forest. Moreover, the healing power of nature not only relies on living organisms, but also in sporadic or recurrent experiences with wilderness as a whole, such as climbing a mountain, or walking on the beach. As Ulrich concludes, 'exposure to unthreatening natural scenes [and settings]can promote recovery from mild and even acute stress.'[89]

Early experience with animals and other components of the natural world has also been associated with the human development of imagination and creativity. The research of the psychologist Edith Cobb, mostly based on psychological analysis of highly creative people, reports that early experiences with the natural world were a basic element in their creativity. Most importantly, they developed an 'early awareness of some primary relatedness to earth and universe'.[90] Early contact with the natural world, she explains contributes highly to the development of a sense of wonder and exploration.[91] Similarly, Rachel Sebba investigated children's attachment to and relations with the non-human Nature. She reports that children relate to the natural world 'in a deep and direct manner, not as a background for events, but, rather, as a factor and stimulator'. She also reports that most of the adults that she studied recognized the outdoor environment as a decisive element in their childhood. [92]

All the authors briefly examined above argue that recurrent and intimate relationships with other human and non-human beings and other elements of the natural world are essential for children's development as socio-ecological human beings. Through socio-ecological relationships of care, kinship, social responsiveness, etc, natural consciousness, as a manner of looking and participating in the world from a loving socio-ecological perspective, may spontaneously emerge and be cultivated. Natural consciousness is not given at birth, but must be developed and

[88] Katcher and Beck, in Ibid., 115; For more information see, Aaron Katcher and Gregory Wilkins, "Dialogue with Animals: Its Nature and Culture," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993), 180.
[89] Ulrich, "Biophilia, Biophobia, and Natural Landscapes," 106.
[90] Edith Cobb, *The Ecology of Imagination in Childhood* (Columbia University Press, 1977), 17-18.
[91] Cobb, *The Ecology of Imagination in Childhood*.
[92] Rachel Sebba, "The Landscapes of Childhood," *Environment and Behavior* 23, no. 4 (July 1, 1991): 395.

cultivated in the *process of living in itself*. Although we, human beings, are biological loving beings, that is, we are born as loving beings waiting to be received by a loving world[93], our innate loving bodyhood needs to live in a loving manner of living. We are social beings that physiologically and socially depend on love.[94] As Sorokin asserts, 'children deprived of love tend to become vitally, morally, and socially defective'.[95] To be born as loving beings is not enough; it is just the starting point of the spontaneous desire and need to live in the conservation of a manner of living primordially based on this emotion. As adults we are responsible for the children that we are educating, and our social and ecological consciousness, our manner of valuing Nature as a whole, has a deep effect on their education. Every one of our emotional dispositions and actions influences our children in one way or another. We are responsible for how we relate to children, how we introduce them to the social and ecological world and how we all create and conserve a world that *nestles and nourishes* our biologically loving existence.

[93] See Maturana and Verden-Zoller, *Amor y Juego: Fundamentos Olvidados de lo Humano*; Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 214.
[94] Maturana and Verden-Zoller, *Amor y Juego: Fundamentos Olvidados de lo Humano*, 102, 203.
[95] Sorokin, *The Ways and Power of Love: Types, Factors, and Techniques of Moral Transformation*, xi.

Chapter 4

Steps to an Ecology of Loving and Co-designing in Love

In the last chapter, I synthesised a biological explanation of love from a socio-ecological perspective. Dealing with the question of why we love, I have proposed that we do so because loving was and is the core for the emergence and conservation of our humanness as socio-ecological beings—love is a vital aspect of human nature—we are loving-biophilic beings. Love, I have suggested, allowed (and allows) the emergence of intimate socio-ecological relationships with other human and non-human beings, while it emerged (and still emerges) from those intimate socio-ecological intimate relationships. In this sense, I understand love as a fundamentally natural phenomenon that emerges from and is cultivated through human ecology—*here,* in the ecology of life and not in a domain that might transcend (and ultimately negate) our ecological existence. I have suggested that this human ecology happens through an ongoing existence in 'conversations' that creates, and participates in, a socio-ecological medium. So, I have suggested that our loving/biophilic humanness emerges from and constitutes an intimate socio-ecological mode of conversing.

So, if love is a human biological necessity or a constitutive aspect of humanness, exploring or studying the phenomenon of *loving conversation* becomes an important and indeed vital activity. Understanding humanness as a conversing being that is biologically dependent on love would automatically lead us to another question: what does love actually mean? What is it 'to love'? Millions of people, from different cultures, may have tried to answer this (always spiritual or religious) question for thousands of years. My starting point in attending to this question however, is that there is no single, definite answer to it. In any attempt to look for a final and objective definition of love, we can only find the negation of love and the negation of our bio-socio-ecological existence. I believe that there is no objective essence of love and any attempt to do so will be reductive, and biologically, ecologically and Cognitively implausible. In contrast, I

think that love is a bio-socio-ecological phenomenon; it happens through the praxis of living of a unique individual while being coupled with its unique medium, and as such, it is therefore intrinsically 'pluralistic'. In other words, as an ecological-pluralistic phenomenon, love is indefinable in objective and transcendental terms. So, from this standpoint, the only way that I can talk about love, without negating my bio-socio-ecological existence, is to do it precisely *from* my bio-socio-ecological existence. This implies, first, that I bear in mind this bio-socio-ecological existence as the only domain in which love can be explained coherently; and second, that I be aware that this is *my* understanding of love, not *the* understanding of love.

Thus, the general task of this chapter is not to look for a definite answer to the question 'what is love' in objective and transcendental terms, but to briefly examine in general terms, and from a socio-ecological perspective, how we live (i.e. see, act, reflect, interact, etc) when we do so through loving conversations.[1] In other words, what happens in us and in our relationships with the other when we converse in love? My task in attending to this question therefore is simply to contribute to a more coherent basis for the understanding of what I refer to as 'steps to an ecology of loving'.

This chapter has two particular tasks:

First, in line with what I have synthesised in the last chapter, I will continue to argue that *love is the main human emotional disposition and relational phenomenon that allows the emergence of – or already implies – socio-ecological behaviour*.[2] As I commented in the last chapter, I do not intend to reduce the notion of human ecology to the phenomenon of loving. Strictly speaking, I have also asserted in Chapter 1 that every human interaction is ecological. In etymological terms, the notion of ecology means the study of the home. In more scientific terms, it means the study of the relationships between the components that participate in a system (home). Accordingly, all human behaviours are intrinsically part of the ecosystem that they constitute. However, I shall

[1] From a similar epistemological perspective, Maturana asks the following: 'qué hacer de nuestro vivir da origen en nuestro vivir a la experiencia del tao?' (What kind of doing in our living originates the experience of tao in our living?)Humberto Maturana and Ximena Y. Dávila, *Habitar Humano: En Seis Ensayos de Biología-Cultural* (J. C. Sáez, 2008), 72.

[2] We have seen that both Maturana and Wilson suggest that love is, biologically, a need and a desire for social and ecological relationship.

continue to argue that conversing-in-love is a *prime* and *vital* human manner of constituting and conserving that ecology, and therefore the core of socio-ecological sustainability. It is the bedrock for the emergence of what is certainly distinctively human; that is an ethical disposition that is traduced in certain kinds of eco-social behaviours. A good illustration of this can be found in the science of ecology itself. Ecology, during its sixty years of existence, has also emerged as an ethical manner of understanding and relating to the natural world in which we exist. I see the manifestation or movement of ecology, in its deepest sense, as an emerging loving manner of reflecting, looking and conversing, as an ethical invitation to change cultural patterns that are ultimately destroying the ecology of life—our human ecology.

Based on this, the second specific task of this chapter is to argue that conversing in love is the emotional and relational foundation of ecological design. In Chapter 2, I have suggested that 'to design is to converse'—design is part and parcel of the human existence in conversation—it is a kind of conversation that facilitates other conversations. From this perspective, I have said that, if we want to understand how we design, and what kind of world we are creating through our design actions, we need to pay attention to our emotions. I asked: 'what kind of conversations are those we call 'ecological design'? I will argue in this chapter that loving conversations (or conversing in love) are the basis of ecological design—I will also assert that, if we want to understand ecological design and its role in any socio-ecological situation, it must be associated to and executed from loving.

In summary, the task of this chapter is to explore what happens when we converse in love—i.e. what happens in the manner of seeing of the lover, how the lover sees and treats the other (his beloved), and how loving conversations emerge through (because they are) ecological relationships. Through this examination, my aim is to evoke the basis of a manner of living (seeing, acting, interacting, etc) through love that, I think, is intrinsic to ecological design, or more accurately, to the act of designing ecologically.

In order to do this, I have divided this chapter into three sections. First, there is an introductory section that outlines basic questions and ideas about love from a more bio-socio-ecological

perspective in relation to three main traditional views that have deeply influenced our cultural understanding of love: *eros, philia* and *agape*. The aim is not to generate a profound examination of these 'forms' of love, but to use them as a Western philosophical platform that offers different concepts and ideas that may either contribute to or counteract the understanding of an ecology of loving. In the second section I briefly examine two common ideas that appear central to Western-philosophical explanations of love, and that I perceive to be counteracting elements to the understanding of love in bio-socio-ecological terms. They are (1) that the 'beloved' (i.e., what the lover loves) can be explained in *transcendental* terms separated from the lover, thereby generating objective, progressive and universalistic ideals of love; and (2) that a loving relationship implies the *union* of lovers with the eventual loss of their individuality – i.e., either physically or cognitively. I will argue that it is necessary to overcome these ideas in order to understand the ecology of loving. And third, based on the ideas explored in first two sections of this chapter and on the examined material from previous chapters, I will explore and propose some important aspects that may help to constitute *a* basis for the generation of a synthesis of what I call 'steps to an ecology of loving', and to see their implications on the configuration of a new understanding of ecological design.

4.1 Setting Basic Questions and Ideas of an Ecology of Loving from a Critical View of the Western Traditional Perspective of Love as Reflected in the Notions of *Eros, Philia* and *Agape*

Eros, philia, and agape bring a spectacular Western synthesis to the notion of love. Each of them has triggered uncountable feelings, discussions, reflections and theories in Western philosophy and beyond. Each of them seems to bring something that I would consider essential for a synthesis of love and its importance in human life. Virtually every account of love in the Western culture, from philosophy to poetry and religion, from psychology to ecology, from biology to sociology and anthropology, has been influenced by these ancient points of view. Over the millennia, these three accounts have become traditions. Most of Western accounts of love, although in their own complexity, are based on or have their own interpretation of some of the ideas from these traditions. My intention is to understand the most significant conceptual basis of

these three traditions in relation to a bio-socio-ecological perspective of human life. I will do so by paying attention to their original sources—that is, the Platonic view in the case of *eros*, the Aristotelian view in *philia*, and the Christian view in *agape*.

Plato's Eros

The Concept of Eros

Most of Plato's *eros* is discussed in the Symposium, one of the greatest and most studied dialogues in Western philosophy. Love is the main topic of conversation at this supper party and provides a fluid connection between all the speeches offered by the participants. The culminating speech at the party is given by Socrates, who, as a character and not as Socrates himself, embodies the type of philosopher who is able to teach the philosophy of love, so it is he who presents some of the fundamental aspects of Plato's *eros*.

Plato's account of love is fundamentally based on the notion of desire, which, as discussed between Socrates and Agathon during the banquet, is associated with the notion of having. Plato claims that a person always desires what he does not have. In the Symposium in general, Plato is convinced that the most valuable things are those that a person does not have, and therefore there is, necessarily, great attention paid to them—a desire to obtain them. It would be simply nonsensical to conceive of a situation in which a person desires something that he already has (199e8-200e7).[3] So, the association between desire and having, presents an account of love based on a longing for the lacking, thereby constructing a vision of a humanity that is always yearning for something else—desiring to get what it does not have. Now, the desire of whatever, of course, would not be enough to define the nature of love. Desire, Plato believes, must be directed to something in particular (199c16-e7). So, the interdependency between these two ideas forms the basis of Plato's account of love. As he concludes: 'One, love is always the love of something, and two, that something is what [the lover] lacks' (200e9-10).

[3] Unless otherwise noted, I shall cite the following translation of Plato's Symposium: Plato, *The Collected Dialogues of Plato, Including the Letters*, trans. Edith Hamilton and Huntington Cairns, 2nd ed. (New York: Pantheon Books, 1963).

However, Plato does not finish there. The most important point for Plato is what he constructs over this basic idea and that which actually explains the nature of love as a desire. In Plato's *eros*, the desire of loving something that one lacks is not based on the specific 'thing' that the person loves, but on something more general and important that tends to transcend that particular 'thing'. For him, 'love only loves what is lovely', and the only thing that qualifies as such is what *is good*. In other words, for Plato, love is essentially the love of the good; so, what the lover really lacks is 'the good'. The main argument for this is that, for Plato, man will always desire what is good for him and not what is bad or ugly. As he says, 'men will even have their hands and feet cut off if they are once convinced that those members are bad for them… what we love is the good and nothing but the good' (2005e2-206a2). As the desire for something that one already has is nonsensical, the desire for something that is bad is nonsensical too. So, it is now that Plato's account of love becomes complete: 'Love longs for the good to be his own forever'. In other words, Love is not the good; it lacks the good. So, Love desires (or is the desire) to obtain the good, and forever—a desire for the eternal existence, immortality. Let me explore in detail a few aspects implicit in this notion, since they have become an epistemological basis of both the Western culture in general, and many accounts of love in particular.

The Progressive Perspective

The epistemology of a human being longing to obtain the good forever leads Plato to claim that love is a kind of intermediate state, a transition towards the good. Therefore it distinguishes itself from badness and ugliness. Love is neither bad nor good, but a journey towards the latter. The transition towards the good is intrinsically linked with an ascending process towards goodness—what Plato calls 'the true scale of perfection' (210a3-4) and is the main ingredient that he uses to explain the process of loving. From this standpoint therefore, Plato generates an account of love that is progressive and directed to a defined end, yearning for the 'the final revelation' of the good, as Diotima calls it in her conversation with Socrates.

In *The Symposium*, Plato describes several basic ascending stages in the process of love, from its initiation to the absolute good or what he also calls 'the beautiful'. First, love is initiated by a young lover in devotion to the beauty of the body. Then the lover falls in love with 'one

individual body'. Next, after the lover realizes that the beauty of one body and the beauty of 'every body is the same', he 'must set himself to be the lover of every lovely body'. From there, the lover must encounter the beauty of the soul, which, in fact, transcends any possible 'unlovely body'. At this stage, the lover will realize that, after all, the beauty of the body 'is not of so great moment'. From this state, the lover will be led to a more social and moral domain, that is 'to contemplate the beauty of laws and institutions'. Next, the lover should pay attention to 'science', to the 'beauty of every kind of knowledge'. Then, by amplifying his love to every kind of knowledge, the lover will free himself from 'a slavish and illiberal devotion to the individual loveliness of a single boy, a single man, or a single institution'. This is the stage of the philosopher, from which, after contemplation of the 'open sea of beauty', and the confirmation and strength of philosophical ideas, the lover 'will come upon one single form of knowledge, the knowledge of the beauty' (210a7-d8).

> Starting from individual beauties, the quest for the individual beauty must find him ever mounting the heavenly ladder, stepping from rung to rung—that is, from one to two, and from two to *every* lovely body, from bodily beauty to the beauty of institutions, from institutions to learning, and from the learning in general to the special lore that pertains to nothing but the beautiful itself—until at last he comes to know what beauty is (211c1-8).

I would like to comment on two important (but contradictory) implications that are important to an explanation of an ecology of loving:

On the one hand, it is clear in this explanation that Plato understands the individual as a continuous changing being. Plato seems to be fully aware of the continuous natural changes of life, particularly in human beings. The individual's body (as well as his soul and knowledge) change in a way that 'every day he is becoming a new man': '[N]either his manners, nor his dispositions, nor his thoughts, nor his desires, nor his pleasures, nor his sufferings, nor his fears are the same throughout his life, for some of them grow, while others disappear' (207d4-e5). Here, Plato may well be the first Western philosopher to express an awareness of a fundamental bio-ecological principle: the presence of continuous change in the homeostasis or conservation of life phenomenon.

Also, the process of love as expressed by Plato is based on the encounter between the lover and his world. Although it is an account that speaks and explains love from the perspective of the lover (particularly the lover's desire), it necessarily implies the concept of an ecologically close relationship with different beings. Most importantly, this vital close ecological encounter with other creatures, Plato would say, is articulated through love. Moreover, it is clear in Plato's view that loving- intimate relationships constitute a source of ecological awareness. For example: loving a person in particular is a platform to expand the view, to become aware that every human being can be respected and loved. It describes a journey in which there is an emerging consciousness about the interdependency between the existence of oneself and that of others. There is an opening process in which the 'one' (oneself), the 'two' (oneself in relation with the other), and 'everybody' (all others that constitute the medium in which oneself lives) are interconnected. I consider these points to be essential aspects of an ecology of loving.

On the other hand, even though this ecological dimension (such as the sexuality of the body, or the sociality of the institutions, or the knowledge of philosophy), lasts until well advanced up the 'ladder', it seems to be eclipsed (or eventually negated) with Plato's progressive view of love based on the appetite of the lover towards perfection.

The continuous change intrinsic in the phenomenon of life is subjugated to a progressive process of change towards perfection—to the desire of the 'mortal' to 'perpetuate itself' in immortality. Plato believes that mortals, in contrast to the stable deity, need to leave behind the 'obsolete' and refill it with 'new life'. It is this 'the only way' that 'the body and all else that is temporal partakes of the eternal' (208a3-b4).

In this sense, the lover in Plato's view is anxious, preoccupied, and uses his energy, consciously or not, to satisfy this fundamental need for absolute beauty. So, the lover will actively strive for it until he obtains it. The lover has an insatiable appetite which by 'stepping from rung to rung' acquires everything, yet without satisfying the most important desire of all: happiness, the good. Nothing seems to stop these hungry ambitions. The pleasure of the body leads him towards the pleasure of the soul, the pleasure of the soul, towards the pleasure of the social, and the pleasure

of the social to the pleasure of knowledge. As Gregory Vlastos comments, 'Plato is the first Western man to realize how intense and passionate may be our attachment to objects as abstract as social reform, poetry, art, science, and philosophy'.[4] Critical questions emerge from these points such as, does the human attachment to things have any relation to love? Is the human attachment to things or a desire to obtain a thing, a characteristic of love or the negation of it? Is love about obtaining or becoming something else or about cultivating what we already are—human living beings? Does love have any relationship at all to the idea of an endless progression towards something that we are not?

Under this construction of humanness as essentially anxious, Plato needs therefore to generate an abstract and 'idealized'[5] dimension in which the desire is of having or obtaining ends. Platonic *eros* explicitly initiated and promoted an idealized progressive perspective of life that deeply influenced our Western epistemologies of life, and that, I think, has generated profound misunderstandings and environmental crises. My view is that an endless yearning of a pre-defined satisfaction that is supposedly obtained from things or states we do not have is a source of anxiety, misery, over consumption, and dilapidation, which constitutes anything but a loving disposition. I consider this to be an implausible and anti-ecological point in the *eros* tradition. But, I will come back to this critical point and examine it more deeply, in the last section of this chapter.

In order to stop this endless anxious and acquisitive process, Plato defines a culminating state of beauty.

> '[T]he very soul of the beauty… is an everlasting loveliness which neither comes nor goes, which neither flowers nor fades, for such beauty is the same in every hand, the same then as now, here as there, this way as that way, the same to every worshipper as it is to every other.
>
> Nor will his vision of the beautiful take the form of a face, or of hands, or of anything that is of the flesh. It will be neither words, nor knowledge, nor a something that exists in something else, such as a living creature, or the earth, or the heavens, or anything that is—but subsisting of itself and by itself in an eternal oneness, while every lovely thing partakes of it in such sort

[4] Gregory Vlastos, "The Individual as an Object of Love in Plato," in *Eros, Agape, and Philia: Readings in the Philosophy of Love*, ed. Alan Soble (Paragon House, 1989), 108.
[5] Irving Singer, *The Nature of Love: Plato to Luther* (MIT Press, 2009).

> that, however much the parts may wax and wane, it will be neither more nor less, but still the same inviolable whole (211a – 211b).

In the description of absolute beauty offered by Diotima in *The Symposium*, it seems that there is a huge step, an irrecoverable gap between the whole ascending process of love and the final stage of absolute beauty. That is, absolute beauty/good is the culminating point of a transition that ultimately generates a dualistic vision of humanness. On the one hand there is a domain of pure perfection and immortality that embraces a universal goodness. On the other hand, there is the domain of human existence in an ongoing ecological relationship, highlighted by its natural (always imperfect) needs and desires common to any natural being.[6]

How can we comprehend the tension in this dualism—of a state of absolute beauty (an 'inviolable whole' or form) on the one side, and a human natural process that eventually leads to this state on the completion of the ascending process of love, on the other side?[7] Based on the philosophers Singer and Prince, let me briefly attend to this dualistic tension from two points of view – first, the nature of form and its division with structure, and second, the confusing essence and role of the lover once the absolute beauty has been obtained. A close examination of these two points goes well beyond the scope of this essay, nevertheless, a basic explanation may be useful in clarifying some basics of the *eros* tradition that, I think, imply inexorable ecological difficulties.

First, it is hard to see if that final step towards ultimate beauty is either a separation or an interconnection between the human natural structures (e.g. the body) and the form (or organization) that constitutes humanness (autopoiesis, in biological terms). Singer argues that the purpose of Plato's love might be the yearning for the form that is intrinsically metaphysical. In other words, that the form of, e.g. all trees, is independent of any particular one—namely, that the form of trees is the very essence of trees, 'it is what they have in common', and that commonality exists even if there is no single tree embodying that form. So, from a Platonic view, the 'universal' form of trees, or the 'being' of a tree must occur in a space ''outside' of nature'. In

[6] Ibid., 47-88.
[7] This question is present in several philosophers that try to deal with Plato's explanation. Two of them are Price 1989 p49-50; and Singer 2009 p59

this sense, 'because [forms] are abstract universal', the form of trees does 'not exist in the sense in which actual trees…exist'. That is, in contrast to the natural physical domain of Nature in which everything is in continuous movement, the form is stable. Therefore, Singer explains that, from a Platonic perspective, 'only the forms put us in touch with the permanent character of things. They reveal the structure of the universe. Acquaintance with their ineluctable whatness satisfies our quest for certainty: they are the ultimate reality'.[8]

How would it be possible to understand the form of anything without negating our bio-ecological existence if it is not embodied in its structure? Simply, it is not possible. In biological terms, we have seen that form and structure are inseparable. The form of living beings (autopoiesis) is universal to all living beings but it only happens through those living beings. Without those living beings that exist in their structures there would be no 'form' of living being. Thus, the separation between form and structure—between universal beauty and ecological humanness—is a conceptual negation of our natural existence. In this sense, in order to explain the phenomenon of form or that of absolute beauty in universal and meta-physical terms, Plato's view of love seems to transcend the natural world, or the organization of the phenomenon of life. This generates an account in which love has a predefined goal: to possess the knowledge of that necessarily metaphysical and pure state of absolute beauty. This Platonic tradition, as understood by traditional Christianity, implies transcendence from the natural world, from the domain of life in ecological terms. From the domain of an individual, in attaining the good or the beautiful via the pure philosophical knowledge of everything, it seems that the lover is looking to transcend from his body and his embodied emotions. In the ascending process of love, it seems that, at the end of the journey, the lover reaches a state of pure rational knowledge, a kind of disembodied mind, a reality of no physical needs, nor desires, but just abstract maturity. Finally, this conception of a transcendental and metaphysical 'good' makes the idea of loving and taking care of natural dynamics epistemologically implausible. As Bratton comments in Hargrove's words, 'the Greek concept of an ideal, unchanging, otherworldly reality, not only "prevented the development of an ecological perspective… [and] discouraged the aesthetic appreciation of the

[8] Singer, *The Nature of Love: Plato to Luther*, 57-59.

natural world, [it] promoted a conception of reality that made the idea of nature preservation conceptually difficult, if not impossible"'.[9] I think that the ecology of loving must be explained from our ecological existence. *Eros* tradition in general, does not consider this, and invents transcendental explanations of love – the good – that not only escapes from the ecology of life, but also negates it.

Second, a similar tension occurs with the understanding of the 'role' of the lover once he has reached the good. Is the lover, once the ascent of love has been completed, in a stage of paralysis, a state of pure contemplation where no desire and intention emerges, a kind of demi-God? Or, on the contrary, is the lover still a 'person' (only 'a friend of Gods' -212a5-) who has reached great ecological (philosophical in Plato's terms) knowledge and consciousness about the world that he and everything around him inhabits? On the one hand, in the state of absolute beauty, the lover is eventually *united* with the 'inviolable whole' that beauty is—the lover comes to possess beauty. This would take us to an immediate ecological impossibility. Since love is described as a transition towards absolute beauty, it would seem that, once beauty is obtained, the lover is not a lover anymore. The lover seems to transcend human needs and desires, becoming, if possible, a kind of demigod in the land of immortality. After all, it is immortality that Diotima teaches to be the very objective of man. 'Since we have agreed that the lover longs for the good to be his own forever', says Diotima, ' it follows that we are bound to long for immortality as well as for the good—which is to say that love is longing for immortality'. If Plato is serious about the idea of reaching eternal beauty, and I believe he is, it would then follow that love, as a process *towards* the good, implies that, once absolute beauty is reached, there is no more desire; so, there is no more love. Ultimately, there is no more human being (?)—just an unnatural 'contemplative' being(?)—abstract beauty(?)

On the other hand, we might argue that, possessing the beauty does not necessarily imply, as Nygren says, to 'fly from the world'[10]. Diotima also says in *the Symposium* that the philosopher with the possession of beauty becomes only a 'friend of Gods'. This statement, as Price claims,

[9] Susan P Bratton, "Loving Nature: Eros or Agape?," *Environmental Ethics,* 14,, no. 1 (1992): 3-25,.
[10] Anders Nygren, *Agape and Eros*, trans. Philip S Watson (SPCK, 1982), 179.

would undermine the last argument.[11] Here, Price raises the question of whether the lover who has become beauty itself is only in a state of passive contemplation or 'also in an active philanthropy'.[12] To answer this question, Price quotes a phrase from the *Thaetetus:* 'One must try to flee from here to there as quickly as possible. And flight is assimilation (*homoiosis)* to God as far as possible; and assimilation is becoming just and pious together with wisdom' (176a8-b3, cf. *Rep* 10.613a7-b1).[13] As Price comments, 'striking here is that flight from the world is equated with playing one's part rightly within it'.[14] The best example of this is the role that Socrates embodies in the Symposium as a mature philosopher who teaches the art of loving.[15] In this way, it could be said that he represents someone who could be called a 'friend of gods', or the 'assimilation to god'. In this sense, the active *eros* in contemplative beauty seems to be possible without necessarily escaping from Nature. This might mean great ecological knowledge—a person with great experience and an open view. However, is this a pluralistic and equalitarian perspective of love? Isn't this, in contrast, a sort of manipulative perspective of love, a source of domination? If the experience of Socrates is essential to teach the art of love, we might ethically question the implicit aristocratic and hierarchical condition needed to reach that ecological consciousness, since, for Plato, it is just the philosopher—i.e. the only one who embodied the last rung of the ladder—who can contemplate, live and cultivate the art of beauty.

To explain the last critical question, we have to deal with another difficulty of the *eros* tradition. The *Eros'* epistemology of reality implies the existence of an absolute objective truth. It is from this perspective that Plato constructs the notion of 'universal beauty'. In this sense, everything must long for that final beauty. This reduction of the notion of desire to just a universal beauty (or what in modern epistemology is understood as objectivity) reduces ecological diversity to one final truth—that is, it implicitly negates the possibility of diversity, the possibility of different angles of view legitimate in themselves, and as such it becomes a source of domination and discrimination over others (over Nature, or 'less valuable people'?) This seems to be not only in

[11] A. W. Price, *Love and Friendship in Plato and Aristotle* (Clarendon, 1989), 50.
[12] Ibid.
[13] Quoted in Ibid., 51.
[14] Ibid.
[15] Frisbee C. C Sheffield, *Plato's Symposium: The Ethics of Desire*, Oxford classical monographs (Oxford University Press, 2006), 66.

the notion of 'universal beauty', but also in the process of love itself. We have seen that this method is progressive and intrinsically aristocratic, since the last rung of love implies huge rational, abstract knowledge, which, although not necessarily, tends to transcend 'lower' or less perfect forms of love. As Singer comments: 'Starting with a vision of everything being in love, Plato ends up with the incredible suggestion that only the (Platonic) philosopher really is'.[16]

To sum up: In *The Symposium*, Plato emphatically reacts to Agathon's statement that love is equivalent to beauty or good because both are embedded in Gods—namely that love is essentially divine. For Plato, if there is something that love is not, it is that it is divine. Plato brings back the possibility and phenomenon of loving to the human dimension. This is probably the most plausible point in Platonic love. *Love is linked to human desires*. Without that desire, or intention, or disposition, emerging from the lover, there is no phenomenon of love at all. It is not possible to explain the nature of love without considering the fundamental role of the lover.

However, we have seen that Plato situates the good or the beloved in a metaphysical domain, thereby creating a sort of inexhaustible human pilgrimage. What Plato does then, is *to separate the lover from the beloved*. They belong to different dimensions. In his intention to finish with love as something that belongs just to the divine, he 'forgets' to also bring back the beloved to the dimension of the lovers. In other words, the good is reserved just for the divine (or maybe also for the aristocratic philosophers). So, love between imperfect mortals, accepting their imperfect realities, their mistakes, their daily ecological life, has no place in the *eros* tradition. Love in the human domain not only seems to be unsatisfactory, but also appears as a mere vehicle to reach that magnificent eternal and absolute beauty, such as the Christian God, or Freudian desire to regain union with the mother. In this sense, the lover has no choice but to negate his actual 'imperfect' condition, since *happiness* and well-being will never be attained in this dimension. What a nightmare! Briefly speaking, I think that Plato's main error is that his proposal is just about *attaining*, never about *maintaining or cultivating* one's existence. Therefore, for me, Plato's fundamental mistake is the separation between love and the good,

[16] Singer, *The Nature of Love: Plato to Luther,* 83.

rooted in his idea that *desire* (love) is fundamentally something that someone does not *have* (the good or the beloved).

Desire and Instrumentalism

I have just suggested that Plato's *eros* depicts an important aspect of love: that of desire. *Eros* in this sense is personal, internal and is deeply related to physical and intentional states. *Eros* is related to the human need for survival not only in terms of food, shelter, and drink, but also in terms of 'aesthetic knowledge' and 'wisdom'[17]. These and other desires are deeply connected with basic or 'innate'[18] needs in the human domain both in physical and psychological terms.

An important point in Plato's view of love is that there is no conflict between self-love (understood as *erosic* desire) and love of others. In the ascending ladder of love towards good, we have seen that there is a deep interdependency between self-love and the love of everyone and everything. In fact, Plato believes that it is the extension of self-love to the love of others—that is, the lover's comprehension that beauty is present in other creatures that are as beautiful as oneself, when the lover makes steps towards the good. In that opening process towards everything, Plato believes that the lover makes the beloved virtuous: 'it is only when [the lover] discerns beauty itself through what makes it visible that a man will be quickened with the truth…'(212a). The lover, striving to make the other virtuous, also benefits himself. Platonic love, again, is mostly focused on the subject of love, the lover, particularly on his intention to obtain happiness, to become the good, and particularly, to obtain immortality[19]: 'Every one of us, no matter what he does, is longing for the endless fame, the incomparable glory that is theirs, and the nobler he is, the greater his ambition, because he is in love with the eternal' (208d6-e1). In this sense, Platonic love is not gratuitous at all.

A first interpretation of this point would be that, there is no problem with the lover being mostly occupied with his own happiness, in his own desire to become the good, because the good is a universal truth. That is, not only is the lover striving for the good, but everybody, every mortal

[17] Bratton, "Loving Nature: Eros or Agape?," 11.
[18] David W Orr, "Love it or Lose it: The Coming Biophilia Revolution," in *The Biophilia Hypothesis*, ed. Stephen R. Kellert and Edward O. Wilson (Island Press, 1993).
[19] David O. Brink, "Eudaimonism, Love and Friendship, and Political Community," *Social Philosophy and Policy* 16, no. 1 (1999): 258.

creature is doing so. In this sense, there is no conflict between the self and others, since all lovers have the same universal direction and objective. As Singer explains Plato's argument in the *Republic*, 'nothing can really benefit one without also benefiting the other'; and he comments, 'in Platonism the individual is organically linked to the world he lives in'.[20] If we agree with the epistemological belief that there is only one universal truth, then Plato's thesis seems irrefutable. But, if from a phenomenological and bio-cognitive perspective, we question the existence of such a transcendental, glorified and objective truth, then Plato's reductionism becomes implausible. It is essentially against diversity and neglects the dynamics of potential conflicts as occurs in any ecological network of interaction.

A second interpretation could be that which has been the main topic of discussion in Western philosophy and psychology in relation to Plato's eros: that the Platonic lover is only self-interested. As Plato says, '[the lover] is longing to make the beautiful his own'. And he wants the good for his own 'forever'—namely, again, to reach immortality. Since, the lover desires what he lacks, the prime focus of his attention is the lack rather the particular object in which he might satisfy his lack. This is an important point implying that Platonic love could be considered fundamentally instrumental and even selfish, since the lover does not really care for the sake of the beloved. In contrast, the lover is just interested in the good and the beloved is treated as a means towards it. We will examine this point later in this chapter in direct confrontation with the agapic account of love, a view that sees love as necessarily disinterested. As I shall argue later, both perspectives are not only epistemologically misplaced, but also together construct polarized visions of love with important shortcomings.

In general, I believe that it is imperative to focus neither on the former, nor on the latter interpretation of Plato's association between self-love and interpersonal love. It is important to be aware that Plato lived 2500 years ago, so we cannot expect to literally implement his epistemology of his world into the world of the present. In this sense, I believe that, on the one hand, we do not have to completely reject the association between self-love and interpersonal love which is present in Plato's theory because of the divinisation and objectification of truth.

[20] Singer, *The Nature of Love: Plato to Luther*, 71.

Plato's view that self-interest and the interests of others do not necessarily conflict and are not independent of each other, is very important. On the other hand, a purely self-interested love that is only focused on some aspects of the beloved, not only negates the beloved as a legitimate being, but also, negates any consideration in which the lover could love the other for the other's own sake. As many philosophers of love at present would argue, this is a fundamental point about love that has no place in Plato's *eros*. Yet, rejecting Plato's instrumentalism should not also imply the rejection of love as a personal desire.

Most of the conceptual points revised here will be considered in the last part of this chapter, in which I will generate the basis for a new synthesis of the ecology of loving. Let me therefore leave this revision still open.

Aristotle's Philia

The Concept of Philia

Aristotle's approach to love is based on the ancient-Greek term *philia*, traditionally translated into English as 'friendship'. A remarkable point of this approach is that it links two fundamental aspects of love: the phenomenon of *relationship*, and the lovers' *disposition* that make a loving relationship emerge and be sustained. Although the *eros* tradition does make a link between the lover's disposition/desire and the different relationships that this might involve, the central point there is self-development—the *personal desire* to attain something, underestimating the importance of relationship in the phenomenon of love. In contrast, the phenomenon of relationship in Aristotle is central to the understanding of *philia* and human life. In *The Nicomachean Ethics*[21], Aristotle devotes two books (VIII and IX) to friendship and he starts them by arguing that friendship is both necessary and noble: '[friendship] is a virtue or implies virtue, and is besides most necessary with a view of living. For without friends no one would choose to live'. Also, Aristotle expands the notion of friendship to almost any inter-human relationship. The English word 'friendship' (or our ordinary understanding of it) does not totally embrace Aristotle's *philia*. For Aristotle (and in ancient Greece in general) friendship is related not only to

[21] Unless otherwise noted, I shall cite the following translation: Aristotle, *The Nicomachean Ethics*, trans. W. David Ross (Oxford: Oxford University Press, 2009).

ordinary friends, but also to familiar relationships such as brotherly friendship, marriage relationship, parent-child relationship and also any shared communal relationship in religious, social or political terms.

What kind of human relationships are the ones that are characterized by friendship in the Aristotelian account? Although a general description of friendship is not absolutely clear in Aristotle's account, right from the beginning he stresses the importance of the lover's disposition in relationship to the object of love, all associated with what is ultimately good and pleasant. In this sense, he suggests that, in friendship, the lovers wish what *is good for the sake of the beloved* (1155b32), and that it must be reciprocal: 'to those who thus wish good we ascribe only goodwill, if the wish is not reciprocated; goodwill when it *is* reciprocal being friendship' (1155b32-34).

Let me examine more deeply three ideas intrinsic to Aristotelian *philia*, since I consider that they are central to a more coherent explanation of the ecology of love.

Loving the Other for Her Own Sake

Aristotle claims that the objects of love are always (a) useful, (b) pleasant and/or (c) good, and that to each of them corresponds to a kind of friendship. Although all of them are considered friendship, Aristotle claims that the first two – useful and pleasant – are something less than love of the other for the other's own sake. In fact both utility-friendship and pleasure-friendship are primarily focused on what the lovers can obtain for their own benefit: 'Now those who love each other because of utility do not love each other for themselves but in virtue of some good which they get from each other. So too with those who love because of pleasure; it is not for their character that men love ready-witted people, but because they find them pleasant' (3. 1156a10-15). In this sense, Aristotle argues that these kinds of friendship are only incidental, since they are primarily based on certain features of the person that are not essential to him; it is not based on the person himself (1156a17-19).

Aristotle then contrasts these two kinds of friendship with the third kind which he calls 'perfect' or 'complete' friendship, and this then provides 'the focal meaning' of friendship—that is, it completely embodies the defining characteristic of friendship in general. As he explains, in

perfect friendship, lovers wish well to each other for the other's own sake (1156b7-11, 1157b25-28). With this, Aristotle can be regarded as the first Western philosopher to explain the love of the other 'for her own sake', that is, as an end in herself. I consider this a turning point for the explanation of love in Western philosophy, particularly in understanding the emotional disposition of the lover—the manner of looking at the other as an end in itself. This vision is not present in Plato—Aristotle's mentor. In Plato, every kind of eros, we have seen, seems to be, strictly speaking, an instrumental stage towards the good, as a means towards a further end. In Aristotle, in contrast, we find an account in which the lover is primarily focused on the beloved as the being it is; the lover wishes well to his beloved for its own sake; this is the lover's primary concern.

Aristotle also argues that, because good is always useful and pleasant, perfect friendship is also, although not primarily, useful and pleasant for the lovers. In this sense, Aristotle says that complete friendship and its incidental usefulness and pleasantness exists 'without qualification' (1156b13-27).

This is related to the notion of self-love. Aristotle believes that self-love is fundamental for friendship, since he believes that friendship is rooted in the person's relationship with himself—even suggesting that this is friendship—the friendship with oneself. He believes that the good man takes care of himself for his own sake. So, as his friend is 'another self', like himself, he would also wish him well for his sake. As he says: 'the extreme of friendship likened to one's love for oneself' (1166b). This is directly related to the fact that friends are seen as other beings. As Aristotle shows in the parent-child relationship, in a friendly relationship a friend is seen as another self, a person in himself (1161b28). And all of this perfect friendship of good men who love their own selves and their friends seems to be articulated in the notion of inter-human relationship.

> As the virtuous man is to himself, he is to his friend also (for his friend is another self)—if all this be true, as his own being is desirable for each man, so, or almost so, is that of his friend. Now his being was seen to be desirable because he perceived his own goodness, and such perception is pleasant in itself. He must, therefore, perceive the existence of his friend together with his own, and this will be realized in their living together and sharing in discussion and

> though; for this is what living together would seem to be mean in the case of man… (1170b5-14).

However, as I shall argue later, Aristotelian end-love is conditioned (and why not, ultimately contradicted) by a predefined transcendental understanding of the good he inherited from the Platonic tradition. Before attending to this however, let me first focus on how the notion of loving someone for her own sake, as expressed in Aristotle's words, is articulated through human relationships.

The Importance of Relationship

A fundamental point in Aristotelian *philia* is that it necessarily implies human interaction. Although, strictly speaking, Aristotelian *philia* is an account of human friendship—that is, it connotes a human loving relationship that is essentially reciprocal—it still generates the basis of understanding love in a broader sense as an ecological event. In Chapter 3, I have stated that intimate relationship was the basis for the cultivation of a loving manner of living that constituted humanness as a loving/biophilic being. In philosophical terms, Aristotelian *philia* can be presented as the first account that recognizes the fundamental value of ecological interactions for the emergence and cultivation of human love (or what Aristotle explains as wishing the good to someone for their own sake). Aristotle argues that friendship is a continuous relationship in which people 'live together' (1157b20). Friendship must be cultivated everyday; it needs time (1156b26). Only in this cultivation of friendship do the lovers learn from each other, trust each other (1156b39) and enjoy the pleasure that their friendship brings (1157b5-24). Even the good happy man, Aristotle also argues, needs friends, otherwise 'life would be hard for him; for by oneself it is not easy to be continuously active; but with others and towards others it is easier' (1170a4-7). Furthermore, Aristotle argues that complete friendship should be lasting because it has all the necessary attributes of friendship—mainly because goodness is an enduring thing (1156b11-13, 18-19). This seems to be the philosophical basis of the biological argument given in the last chapter in which love appears as a human biological tendency to form recurrent affiliation or interaction. In the end, Aristotle concludes that the 'man who is to be happy will therefore need virtuous friends' (1170b18). This conclusion seems consistent with Aristotle's

position that man is naturally a social and communitarian animal: 'The final good [i.e., happiness] is thought to be self-sufficient. Now by self-sufficient we do not mean that which is sufficient for a man by himself, for one who lives a solitary life, but also for parents, children, wife, and in general for his friends and fellow citizens, since man is born for citizenship'[22]. In summary, Aristotelian *philia* appears as the basic and first philosophical argument that supports my standpoint that the only plausible way to understand the phenomenon of love is by accepting and attending to the vital import of human intimate, ecological relationships. Expressed in another way, understanding human socio-ecological existence, Aristotle would suggest, implies attending to the human need to have *philic* (i.e. loving) relationships.

Inheriting the Platonic Transcendental Good

At this point, Aristotelian *philia* would appear irrefutable in ecological terms. Actually, Aristotle (and his student Theophrastus) has often been called the father of ecology[23]. His contribution to and influence in the field of biology (e.g. botany, animal behaviour and relationship with the environment) is incalculable, and it has a clear ecological approach.[24] So, Aristotelian *philia*, as a basic aspect of human recurrent and intimate relationship, can be attributed as the implicit Western initiator of *human ecology*.

However, as suggested earlier, the ecological coherence of Aristotelian *philia* seems to be conditioned and contradicted by its association with and reduction to a teleological and transcendental construction of the *good.* Aristotle argues that perfect friendship is only between people that are good, 'for these wish well alike to each other *qua* good, and they are good in themselves', therefore, this kind of friendship 'lasts as long as they are good' (1156b7-13, 1157a19-20). Here Aristotle links complete friendship (i.e. to wish well to the other for the other's own sake) with the characteristics of the other—namely, their goodness. This idea is clearly inherited from Plato, but there are some differences.

---

[22] In Robert E. Babe, *Culture of Ecology: Reconciling Economics and Environment* (University of Toronto Press, 2006), 76.
[23] Friedrich Simon Bodenheimer, *Aristotle the Father of Animal Ecology* (Consejo Superior de Investigationes Cientificas, 1954); Johnson Donald Hughes, *Ecology in Ancient Civilizations* (The University of New Mexico Press, 1975), 64; Babe, *Culture of Ecology: Reconciling Economics and Environment*, 72.
[24] Hughes, *Ecology in Ancient Civilizations*, 62-64.

On the one hand, Aristotle frees his account of friendship from the Platonic absolute metaphysical goodness. While the intention of Platonic *eros* seems to escape from the natural world to reach the super natural goodness (the beloved), Aristotle is determined to explain the phenomenon of love as a complete human ecological event. In this sense, Aristotle seems to have done what was an epistemological impossibility for Plato. In addition to Plato's understanding of love between humans, Aristotle also situates the beloved (i.e. Plato's good) as a human being too—that is, the good can be embodied by friends, by human beings (and even oneself) and not just by super natural forces and Gods. In other words, the lover and the beloved coexist in the same domain. The good or the beautiful is possible to attain on Earth, especially between human beings in the form of friendship. As Aristotle explains in Eudemian Ethics, 'God is his own good activity, but human good consists in relationship to others' (1245b18-19).[25]

On the other hand, Aristotle could not leave this ecological understanding of love like that and he reduced the whole ecological relationship of what friendship is, to just three predefined kinds: useful, pleasant and (particularly) the good. In his attempt to generate this abstraction of friendship, Aristotle follows Plato and creates an objective goodness that pre-establishes boundaries of what love is, and also contradicts the importance of particular and unique relationships. So, why should we predefine and reduce the conditions and characteristics of loving and friendly relationships in this way? Why do we not leave love and friendship to flourish and be developed *within* the dynamics of particular and unique human interactions from which a much more complex dynamic character would emerge? The main functional principle in the notion of relationship, and particularly in loving ones, is that it is developed in its own dynamics. Its control, predefinition and reduction to universal statements is an ecological impossibility, and ultimately an attitude that negates love.

Aristotle seems to contradict himself with the fact that he also asserts that loving someone is wishing well for their own sake. Aristotle associates the love of persons with the love of the

[25] In John M. Cooper, "Aristotle on Frienship," in *Essays on Aristotle's Ethics*, ed. Amélie Oksenberg Rorty (Berkeley: University of California Press, 1980), 331. In this sense, it seems that Aristotle goes back to the vision of Agathon that love (friendship for Aristotle) *is* good, but, for Aristotle, as opposed to Agathon, love and the good are not just gods, but also humans.

characteristics of those persons, arguing, as we have seen, that complete friendship is the love between good people, and because of that, they wish well of each other. Vlastos criticises this point as follows:

> His intuition takes him as far as seeing that (a) *disinterested affection for the person we love*—the active desire to promote that person's good 'for that person's sake, not for ours'—must be built into love at its best, but not as far as sorting this out from (b) appreciation of the excellencies instantiated by that person; (b), of course, need not be disinterested and could be egoistic'.[26]

Thus, Vlastos states that Aristotle's account of love is implausible because loving the other as a 'person for her own sake' is incompatible with the love of the characteristics of the beloved—namely, her goodness. Similarly, Singer also criticises this point arguing that loving someone necessarily 'means more than wishing him well or enjoying his noble character; it also means caring about him despite his imperfections, treating him in a way that is *incommensurate* with his actual goodness, assuming a virtue though he have it not'.[27] Certainly Vlastos and Singer have a point against Aristotle's view. I believe that they are right in their criticisms that love is not only the love of the good, even more so when the good is treated epistemologically as an objective phenomenon. In this sense, just to love someone *because* it is good would appear to be as instrumental as loving it because it is useful or pleasant.[28] It would be as instrumental as Plato's *eros.* It would not be, as Aristotle would say, to love something for its own sake. So, I agree with Singer that 'a man is much more than his (good) character'. With this, both Vlastos and Singer show that Aristotle's *philia* is somehow incoherent, and take an approach to love which, as we will see, is much closer to the notion of *agape*—to love someone without qualification, without considering their character.

However, is it possible to describe a particular man without his character? Is it possible to love someone for her own sake without attending to her character? I agree with Vlastos and Singer that the association between love and 'the good' generates many difficulties in Aristotelian *philia*. However, I disagree with them that the association between the person's character and the

[26] Vlastos, "The Individual as an Object of Love in Plato," 111 n. 100.
[27] Singer, *The Nature of Love: Plato to Luther,* 90.
[28] Ibid., 94.

person as a *being* is incompatible in loving someone for her own sake. Although I will examine this point later with more evidence, a basic argument for this is the impossibility of loving a particular person without knowing her own different manners of living that, moment after moment, construct the distinctive person that she is. In other words, to 'love the other for its own sake', I shall argue later, inevitably implies to love the characteristics that constitute the other, and that this is not necessarily instrumental love. In this sense, I believe that Vlastos misplaces part of his criticism by negating the possibility of loving the character (or manner of living) of a person (or thing). In summary, I believe that the 'cardinal flaw' in Aristotle is not the link between a person's qualities with the person as a being, but to *reduce* love and friendship mostly in terms of a predefined objective goodness. In other words, in his desire to generate an account of totally universal friendship (and love), Aristotle links love with perfect goodness, perfect human beings, thus generating a predefined, abstract definition of it. This implausibly reduces both the ecology of friendship and the lover's concern for others for their own sakes to philosophical and political predefined assumptions that ultimately negate the significance of particular and unique relationships. I would certainly wish well to my beloved and friends for their own sake, but in complementing Singer's comment quoted above, good (in terms of people characteristic, ecological relationship, and desire or disposition towards the beloved) is not the only character in those kinds of relationships. It is not an objective phenomenon, since, as Aristotle paradoxically knew, what is good for someone is not necessarily good for someone else.

I am inclined to think that Aristotle was aware of the incompatibility between loving someone for her own sake and the definition of love conditioned by 'the good', but his principles of ethics and politics would not have 'accepted' such a liberty and 'uncontrolled' situation. Love, apparently, had to be good, and just some people, such as philosophers, kings and superior people (that is, the 'really good ones') were able to speak about it and to, eventually, define its psycho-socio-political borders. In this sense, Aristotle constructs *philia* in terms of social merit and usually between similar people. Friends are thought to be equals thereby each one obtains a similar love from each other. In this sense, the interconnection between self-love and love of others appears to be a sort of extension of the self to other 'equal' people. This, is called by Aristotle the 'mirror of

the soul', which is the figure of the friend who, as a 'second self', projects the image of oneself. In this way, Aristotle claims that one learns about oneself when looking at one's friends, 'when we wish to know ourselves we can obtain that knowledge by looking at our friend…it is not possible to know [oneself] without having someone else as a friend' (*Magna Moralia* 1213a10-26, corresponding to *NE* 9.9).[29] On the one hand, this reinforces the essential human need for friendship and illustrates the notion of 'living together' that emerges through intimate relationships. But, on the other hand, it illustrates the reduction of friendship to similar people, thereby not only idealizing the notion of friendship and magnifying the notion of goodness, but also conceptually neglecting the ecological notion of diversity which is so important in human relationships and, by extension, to the constitution of a more holistic understanding of the self. As Brink suggests, there must be a 'limit in the value of mirrors', since interaction just with similar people would not contribute, for instance, to 'self-criticism'[30], and also, I would say, it would not contribute to the notion of conviviality in diversity, an essential aspect, at least in an ethical domain, of notions such as respect and tolerance to those who are different. These, and other aspects, show, as Brink suggests, that the concept of similarity should not be a required condition of friendship and, by extension, of any loving relationship.

Aristotle recognizes that, although friendship is better between equal people (such as perfect friendship between good people), there are also cases of unequal friendship. In those cases, Aristotle suggests that love should be proportional to the lover's differences: 'the better should be more loved than he loves, and so should the more useful, and similarly in each of the other cases, for when the love is a proportion of the merit of the parties, then in a sense arises equality, which is certainly held to be characteristic of friendship' (7. 1158b25-29). In this sense, the essential notion of relationship in friendship, particularly that of reciprocity, is reduced by Aristotle to the condition of 'merit'—the better you are, the more loved you become. Thus, although I agree with Aristotle that reciprocity is essential in friendship, and that it is a kind of love in which both actors intimately converse-in-loving between each other, this conversation does not need to be

[29] Quoted in Cooper, "Aristotle on Frienship," 320.
[30] Brink, "Eudaimonism, Love and Friendship, and Political Community," 264.

conditioned by the merit of each one.[31] Love (or friendship) is much more complex than its reduction to merit and similarity. It is not proportional to merit and it can even exist without considering merit at all. This, I would say, is how it operates most of the time. Love is not about status. However, based on the notion of merit, Aristotle followed some political ideals that can be understood as discriminatory and antisocial[32], that lead to seriously questioning the notion of the 'common good' that he proclaims, and that are clearly in 'tension' with the essence of his perspective of friendship—to wish good to the other for his own sake.[33] In Aristotle's view, it seems that there is a huge spectrum of people who are not good enough or good at all, to have the right to guide their lives in equal conditions to those in power. Aristotelian friendship, and his idea of goodness, in this sense, seems to be a friendship for the convenience of the men in power. In summary, I think that a more coherent explanation of the ecology of love must free itself from any objective predefinitions of what is loved and any political implication that it might have, such as the reduction of friendship to similarity and merit.

Christian Agape

The Concept of Agape: A Divine Love

The philosophical bedrock of the Western understanding of love would not be complete with just the ancient Greek philosophies—namely, Plato's *eros* and Aristotelian's *philia*. Descending from

[31] Singer rightly comments that he does not believe this Aristotelian explanation. He says that he could easily imagine its antithesis, 'arguing that only the bad are worthy loving. For they have the greatest need of it' However, this would be unfair for the good people. In this sense, he argues that 'it is never unjust to love anyone. From which it follows that love need not to be proportionate to merit'. See Singer, *The Nature of Love: Plato to Luther*, 96.

[32] For Aristotle there are three kinds of political constitutions: Monarchy, aristocracy, and timocracy (a sort of democracy). For Aristotle the 'best of these is monarchy, the worst timocracy' Each of these constitutions also has their deviations: tyranny, oligarchy and democracy, respectively. Here the worst are tyranny and oligarchy, and democracy the least bad, (*NE* 10.1160a31-1160b22, *Politics* 1289a-b) probably because, in the former two, the bad people are in power, whereas in democracy power is disseminated. In the monarchy, the figure of the king configures a paternalistic ideal of society, a man who is concerned for the good of all, as the father does for his children. In this sense the king is a superior figure that governs over his subjects (the same as in parent over children, and ancestors over descendants). These friendships imply superiority of one party over the other so love between each other is, as explained before, proportional to their merit which is implicitly measured by goodness. In an aristocratic constitution is the same. The figure of man and wife exemplifies this, where each 'get what befits him'. This intrinsically creates an unequal society not in terms of reduction of diversity but in terms of hierarchical goodness. Aristotle even also defends the existence of slavery but with certain conditions (particularly in *Politics* 1-7). He also excludes the right of citizenship to women, barbarians, slaves, and manual labourers. Brink, "Eudaimonism, Love and Friendship, and Political Community," 286.

[33] Ibid., 289.

heaven into the human dimension, *agape* embodies another perspective of love which both questions and expands the ancient-Greek philosophy of love. In general terms, *Agape* is God's Love; Love begins in God. *Agape* is free, unconditional God's love towards everything, and more specifically, towards humans, and it is through Him, that love between humans is possible.

Christianity has been responsible for the divinisation of *agape* and for its influence in almost every corner of the Western culture and beyond for 2000 years. It is certainly the principal religion of *agape*. The blending between God and *agape* is central to this religion. As John says in the Bible, 'God, *agape*, is love' (1 John 4: 8, 16). However, the idea of this metaphysical unconditional love that comes from another domain and descends to establish fellowship with humans does not originally belong to Christianity. It has a much more complex and older root. As Singer comments, the idea of a bestowing unconditional God is already present in the figure of God choosing the land of Israel for no reason, as explained in the Old Testament. It is also present in the Hindus' notion of *lilla*—'the cosmic dance, the play of God shimmering through all the movements of the world'. Also, the idea of humans 'possessed by divine love could have come from any number of predecessors'. It was already present in several ancient Egyptian, Greek and Jewish myths. Moreover, Singer suggests that the idea of God descending to earth is even present in primitive religions in which the God father, embodied in the sky and the sun, comes down to 'possess Mother Earth in sexual intercourse'.[34] Following primitive religions and several indigenous ideologies, we might even understand *agape*, or some principles of it, as an ecologically common phenomenon, thereby distinguishing it from a God-*agape* understood in metaphysical terms. The sun, a star that exists beyond human time reminds us, moment after moment, that every ecological phenomenon on earth has a *connection*, with this *endless* and *bestowing* power that living beings receive *unconditionally*. Although the sun seems to transcend the ecology of life on earth, it physically and biologically makes life on earth possible, without asking for anything in return. It just exists and gives the energy to sustain the biosphere. Ecologically, we could say that the sun is certainly 'agapic'. On the one hand, the necessary inclusion of this 'agapic' sun in the comprehension of the existence of life and the possibility of

[34] Singer, *The Nature of Love: Plato to Luther,* 270-273.

ecological interactions adds a whole new dimension of mystery and spirituality. It brings a necessary degree of humility to the comprehension of life phenomenon. It might remind us that we will probably never be able to unfold the very essence of life and the constitution of ecological interconnections. On the other hand, we can say that it frees the notion of *agape* from the literal figure of a monotheistic God (or more precisely the Judeo-Christian understanding of it). God understood as the sun—that is, in animistic terms— is essentially part of the ecology of life. God and *agape* become a common event, not necessarily a divinity that most of the time is presented in abstract terms. *Agape*, in this sense, is Nature, and it is here with us. It is certainly these two dimensions of *agape* that make it unique: *Agape* is an inexplicable force that loves without reason and it is therefore fundamental to any coherent understanding of life in general and humanness in particular.

However, rather than been associated with the sun, or any other physical natural force, the full idea of *agape* has been culturally developed through the figure of the Christian God. Along with the emergence of civilization in the ancient world, the animistic spirituality and understanding of life, full of natural Gods, was gradually replaced by other ways of thinking, and particularly by the monotheistic and transcendental Judeo-Christian philosophy.[35] Epistemologically, God and Nature where separated—or more accurately, Nature, 'instead of being divine itself' was seen as the creation of a transcendental God.[36] Under this perspective, Christianity attaches to *agape* a human fellowship with God that is certainly anthropocentric. It is in the figure of Jesus—in God becoming human and descending to bestow and teach unconditional love to every human for no reason—that *agape* reaches its fully developed character. It is in the religion and theology of Christianity which (officially) starts in the New Testament that *agape* has been theologically, philosophically and ideologically unfolded in the Western culture. In what follows therefore, I will briefly examine some central notions that characterise this understanding of love mainly through the lens of Christian-*agape*, and particularly through the work of Anders Nygren and

[35] Hughes, *Ecology in Ancient Civilizations*, 1148.
[36] Ibid., 148.

Søren Kierkegaard—two theologians whose works have had a huge influence on the Christian philosophy of the 20th century and the first decade of the new millennium.[37]

A common starting point for the understanding of Christian *agape* is its distinction from other accounts or 'forms' of love.[38] God is the supreme and the only-valid form of love, so any human intention to love appropriately must follow it. Kierkegaard distinguishes *agape* (he calls it 'Christian love') from any ordinary human love, that is, from 'erotic love' (to love humans more than God) and from 'friendship love' (to love a 'single individual above all others'). He states that, in contrast to erotic- and friendship-love, Christian love is eternal and it loves God with 'obedience' and 'adoration', following His[39] wisdom and desire even if it is harmful to oneself. That is, Christian love is the unconditional God's love (and love of God), and it is intrinsically related to the capacity 'to love of one's neighbour, to love all mankind, all men, even enemies, and not to make exceptions, neither in favouritism nor in aversion', as erotic love and friendship do.[40] Similarly, Nygren's explanation of *agape* is fundamentally based on an absolutely irreconcilable difference with Platonic *eros. Eros* and *agape*, for Nygren, are opponents. They belong to 'two entirely separate spiritual worlds, between which no direct communication is possible'.[41] For Nygren *Agape* is God's love to humans, while *eros* is human's love to God. As a Lutheran understanding of Christianity, Nygren claims that *agape* is a form of love that comes from God and that 'determines the essential and characteristic content of Christian fellowship with God', so, 'in the relations between God and man the initiative in establishing fellowship lies with Divine Agape'.[42] *Agape* therefore involves an attitude of 'receptivity and passivity'[43], since it is God who comes and invites man to love as He does. In this way, Nygren states that man can

[37] Although Kierkegaard's 'Works of Love' was first published in 1847, in recent decades his work has reached great attention in many philosophical and theological fields. Nygren's 'Agape and Eros' is probably the most influential theological book about Christian *agape* written in the last 50 years.
[38] Werner G Jeanrond, *A Theology of Love* (T & T Clark, 2010), 132.
[39] I certainly disagree with the fact that God is linguistically treated as a male. I could (and I would prefer to) use instead the personal pronounce 'it' but it could probably offend many traditional Judeo-Christian believers. So, just to excuse myself, I am just following Kierkegaard (or the 'traditional' way) to refer to God. Anyway, here we are talking about the Christian God who is, apparently, male.
[40] Søren Kierkegaard, *Works of Love*, trans. Howard Hong and Edna Hong (Harper Perennial Modern Thought, 2009), 36.
[41] Nygren, *Agape and Eros*, 31.
[42] Ibid., 80.
[43] Jeanrond, *A Theology of Love*, 115.

free himself from his basic 'egocentric' condition, from his endless 'upward movement' towards God, trying to reach immortality.[44] With this, Nygren clearly distinguishes *agape* from the Platonic tradition of *eros,* between 'proper' God's love and the 'imperfect' human's love. It is God who necessarily teaches how to love. That love is *agape.* So, what are the main characteristics of this particular way of love originating in God's wisdom and articulated through God's fellowship with man? Although the figure of God is inseparable from love in *agape*, in what follows I will centre my attention on some philosophical bases and the implications of *agape* in relation to love as a *human disposition* and not on the theological aspects of it.

Love is Spontaneous and Unmotivated

A fundamental characteristic of *agape* is that, as Nygren claims, it is spontaneous and unmotivated.[45] There is no reason for love in *agape*. While *eros* is based on endless desire for the acquisition of goodness, and it exists for that reason, *agape*, in contrast, is 'groundless'—'there are no extrinsic grounds for it'.[46] (As we have seen, making a clear separation between divine love and human love, Nygren proposes that *agape* belongs to God, while any motivated love, such as *eros*, belongs to humans. So, the only ground for *agape* is God himself. That is, the basic motivation of *agape* is basically divine love itself). *Agape* is spontaneous love determined by its own intrinsic nature and not by any external object, nor by any characteristic that might be perceived in the beloved. Although most of Nygren's account is based on the God-human fellowship, he explains that this is the basis for unmotivated love between humans, 'the fact that God's love for us is free and unmotivated carries with it the corollary that we love our neighbour also freely and without any selfish motivation'.[47] Similarly, this unmotivated love is the basis of Kierkegaard's 'neighbour love', in the sense that man ought to love his neighbours without reason, spontaneously, making no difference. Love, in *agapic* terms, is free, unconditional love.

This essential 'non-motive' of agape is automatically associated with another point in Nygren's explanation, thus giving form to the core of *agape* and making it unique: *agape* is 'indifferent to

[44] Nygren, *Agape and Eros,* 210.
[45] Ibid., 75-77.
[46] Ibid., 75.
[47] Ibid., 727.

value'.[48] For *agape*, any possibility of valuation is discarded in advance. Giving the example, when Jesus asked the 'sinner' and the 'righteous' to change places, Nygren argues that this 'transvaluation of all values' between these two characters is in fact 'the principle that *any thought of valuation whatsoever* is out of place in connection with fellowship with God [Jesus]… All thought of valuation is excluded in advance'.[49] *Agape*, in other words, does not consider any possible characteristic for the reason for its love; it is blind to qualities. The beloved is not loved because he is better, or worse, or good. So, as illustrated above, *agape*, embodied by Jesus, loves equally the 'sinner' and the 'righteous' without reason, and not because they are a sinner or the righteous. In short, *agape* excludes any option in which the quality of the object of love would determine it to be beloved.

Both Kierkegaard and the Christian theologian Karl Barth extend the fellowship between God and humans to the humans' love of their peers. In Kierkegaard, this is based on his general concept of 'neighbour'.

> The category of *neighbour* is just like the category of *human being*. Every one of us is a human being. Every one of us is a human being and at the same time the heterogeneous individual which he is by particularity; but being a human being is the fundamental qualification… No one should be preoccupied with the differences so that he cowardly or presumptuously forgets that he is a human being; no man is an exception to be a human being by virtue of his particularizing differences.[50]

So, since the neighbour is all men without distinction or qualifications, Kierkegaard claims that *agape* (or Christian love) is the only way to love the neighbour: 'Forsake all distinctions so that you can love your neighbour'.[51] He adds, 'love to one's neighbour makes a man blind in the deepest and noblest and holiest sense, so he blindly loves every man...[52] Similarly, Barth explains this aspect of *agape* as, 'identification with [the beloved] interests in utter independence of the question of his attractiveness'.[53] Kierkegaard also adds that because of this, agape is

[48] Ibid., 77-78.
[49] Ibid., 77.
[50] Kierkegaard, *Works of Love*, 132 See also p. 37.
[51] Ibid., 75.
[52] Ibid., 80.
[53] Barth 1958, in Gene Harold Outka, *Agape: An Ethical Analysis* (New Haven, Conn: Yale University Press, 1972), 11.

completely indifferent to any change in the beloved, therefore it tends to be eternal[54], as God's love to humans. This non-discriminatory, invulnerable and unchangeable concern for the neighbour independent of any valuing is understood by the theological philosopher, Gene Outka, as 'equal regard': 'the regard is for every person qua human existent, to be distinguished from those special traits, actions, etc., which distinguish particular personalities from each other'.[55]

Within these fundamental aspects of *agape,* we can find some points that I consider essential to an ecology of loving. *Agape* opens up the possibility of loving someone (or something) regardless of the direct benefit that it could bring to the lover. It is based on a concern for the other's sake that transcends any prime specific reason or means for the love of someone or something. This is the main difference between Aristotelian *philia* and *agape.* Although Aristotelian *philia* speaks about loving the beloved for its own sake and 'without qualifications', it is inconceivable without 'the goodness' that the lovers embody and the always-reciprocal character of friendship. *Agape*, in contrast, generates space, using Plato's and Aristotle's term, to love the 'bad' (or the 'sinner', as Jesus would suggest). A*gape* frees itself from predefined and objective qualities and therefore leaves behind any political elite or discriminatory argument of love, a perspective that was unthinkable in ancient-Greek philosophy. *Agape* questions the extreme self-interest implicit in *eros* and invites humans to leave behind the instrumental love (theologically, redeem from Sin)—namely, that instrumentalism is anything but love. In this way, anyone and anything, every human and the rest of Nature, is a candidate to be loved, and it will be loved in its absolutely authentic existence, leaving the beloved to be whatever it might be. Nygren also says that '*agape* is creative'.[56] In contrast to *eros* that only responds to the value distinguished in the beloved, in *agape* the beloved acquires value, becomes worth, when it is loved. All this, seems to me really plausible. It is a bedrock of love.

Also in this context, I believe that *Agape* implicitly discloses the conceptual root of a basic element in loving: the notion of respect. *Agape* opens up the fundamental importance of respecting the legitimacy of the other, even without having a strong intimate relationship—

[54] Kierkegaard, *Works of Love*, 76-77.
[55] Outka, *Agape: An Ethical Analysis*, 9.
[56] Nygren, *Agape and Eros*, 78.

namely, what Christians refer to as 'the love of the neighbour', the love of everything without discrimination as God loves. *Agape* is more plastic and tolerant to eventual changes and difficulties that the beloved might develop. Furthermore, it reverences the other's autonomy and existence without manipulation. Briefly, *agape leaves the other to be*. This is very important. *Agape* involves a human disposition—respect-love—that, as I shall argue later, is the basis for constructing the possibility of establishing loving relationships. As Nygren says, *agape* is 'the *initiator* of fellowship with God'[57] and by extension a fellowship with man and the rest of Nature. From a systemic perspective, by loving everything, *agape* is the love of the whole. *Agape* defines a generic form or sameness, and all that exists in it or belongs to it is loved without qualification. Kierkegaard and Outka, trying to situate *agape* in the human domain, define this whole as 'the neighbour' or as 'human being'—to love equally every human being qua human being. At a more personal scale, *agape* recognizes the importance of the beloved as the authentic whole that it is in its own existence. (When you love someone, for instance, you love her for the *person* she is as a whole).

Therefore, *agape*, as many commentators have said, is a sort of more mature love that transcends and expands *eros* and *philia*. It frees itself from instrumentalism, from predefined objective qualities, and from the eventual association of love with political manipulation. It also generates the basis for the notion of respect. All this is the plausible side of *agape.* However, this has not been done without generating some significant difficulties in ecological terms. The main problem that I have with the most emphatic defenders of *agape* is that, in order to free themselves from the limits of the *eros* and *philic* traditions, they polarise and therefore limit their vision by ultimately negating the necessary human and ecological aspects implicit in *eros* and *philia*. The idea of 'equal regard', of loving everything (the neighbour), might be the basis of respect, of being open to see the other, the unknown, without pre-judgment and instrumental intentions. But, does respect-love of everything (e.g. to respect-love all living beings qua living beings) truly fulfil what love is in ecological terms? Is it possible to understand the ecology of love without having particular loving relationships, such as romantic (erotic) or friendship (*philic*)

[57] Ibid., 80. Italics added.

relationships? The main difficulty of *agape* is that, in principle, having particular loving relationships would challenge the 'universality' of loving everything unconditionally as *agape* proposes. As we have seen, *agape* excludes the notion of friendship and erotic relationships in favour of the love of the neighbour. So, although *Agape* invites us to initiate fellowships with the other, to serve the other, by negating the import of personal love, of particular loving relationships, *Agape* does not successfully explain *how* the love of everything—respect-love—might actually emerge in the lover. Therefore, *agape* becomes stuck in a passive reverence or respect towards the neighbour, being unable to depict love in the ecological intimacy of human life. Briefly, *agape* alone, as traditionally understood, becomes *depersonalised*, and therefore, anti-ecological.

In this sense, *agape* ultimately negates, or at least misunderstands, the individual. Theologian Daniel Day Williams has been critical of this extremism in *agape* and implicitly proposes an extension of it, especially by recognizing the importance of individuality, thereby 'taking account of the other': 'love requires real individuals, unique beings, each bringing to the relationship something which no other can bring'…its 'originality'…[58] In this sense, I agree with Williams that 'the individual who takes account of the other cannot see him merely as the illustration of a type', i.e., as the illustration of a generic form such as 'the neighbour'. As he says, 'persons are not universals'[59]; a person, when loved, is seen and treated as a unique subject. We have seen that loving someone *agapically* implies loving her for her own sake, as the person that she is as a whole. (This also applies to any biophilic kind of love). However, in *agapic* terms, this is done by paying too high a price, which is, being totally 'indifferent to value'—to suppose the total lover's indifference to his perceptions of the beloved's traits. It must be asked, is it possible to have a particular loving relationship with the other, if there is no distinction of its characters/value? More specifically, is it possible to love a particular human being without paying attention to her particular psycho-physical-spiritual structure developed in a unique ecological medium? By being totally 'indifferent to value' *agape* might have freed itself from instrumentalism but it

[58] Daniel Day Williams, *The Spirit and the Forms of Love*, The Library of Constructive Theology (Nisbet, 1968), 115.
[59] Ibid.

ultimately negates the possibility of loving the individual as the person they are (or any other non-human being), since it fails to distinguish them from a generic form—that is, to perceive their authentic individuality as determined by their constituent value/character. In this sense, the indescribable and unvalued individual loses its 'originality' and therefore becomes conceptually replaceable.[60] In systemic terms, *agape* defines a whole (e.g. the person), but, by being indifferent to value, *agape* negates the *structure* of that whole, namely its constituent character, and therefore, the loved whole becomes impersonal and biologically and ecologically out of this world. In this sense, I would agree with Nygren that, yes! *agape* is God's transcendental love, but it is not humans.

As I shall argue later, loving the other in the intimacy of the ecology of loving must be non-instrumental, but this does not imply necessarily to be indifferent to the perceived traits of the other. In contrast, to love someone necessarily implies to know her, to know her particular manner of living. That is why the notion of relationship in love is vital. A particular loving relationship generates particular situations between particular manners of being or living that the lovers embody. To summarise, love is not *only* a respectful attitude towards everything, but it is *also* active, personal attitudes and in many cases, reciprocal or *philic* relationships. By loving only the form, *agape*, in contrast, becomes impersonal, universal, and therefore misunderstands the notion of diversity and relationship. It is in this context that the tradition of *philia* and that of *eros* become important to understanding the ecology of loving and therefore, I think, they are not as 'vulgar' as Nygren suggests.

Dualism of Self-love and Love of Others

Agape has been historically explained as one's total self-giving love to God and the neighbour. In this context, self-love has been understood as essentially selfish (religiously, a Sin) opposing *agape*. Nygren, Barth and, to a lesser degree Kierkegaard, have developed the self-love v/s self-giving neighbourly love dualism. For Nygren, while *eros* is 'essentially and in principle self-

[60] For a similar argument see Neera K. Badhwar, "Friends as Ends in Themselves," in *Eros, Agape, and Philia: Readings in the Philosophy of Love*, ed. Alan Soble (Paragon House, 1989), 168-171.

love'[61]; *Agape* 'excludes all self-love'[62], and states that it is only by 'overcoming' self-love that *agape* can truly emerge.

> Self-love is man's natural condition, and also the reason of the perversity of his will. Everyone knows how by nature he loves himself. *So*, says the commandment of love, thou shalt love thy neighbour. When love receives this new direction, when it is turned away from one's self and directed to one's neighbour, then the natural perversion of the will is overcome. So far is neighbourly love from including self-love that it actually excludes and overcomes it.[63]

Barth also rejects self-love. He claims: 'if the love of man, as his response to the fact that God loves him in this [*agapic*] way, itself consist in his self-giving, this certainly means that there can be no more self-love, no more desiring and seeking the freedom and glory of the self'.[64] Similarly, Kierkegaard also sees purely self-love as selfish. However, based on the words of Mathew 22: 39 ('…you shall love your neighbour as yourself') he invites the lover to love himself 'in the right way' which is by totally renouncing his desires in favour of the love his neighbour. That is, Kierkegaard thinks that only by loving the neighbour, and nothing but the neighbour, can one ultimately love oneself.[65] In general, therefore, self-love is rejected and emphatically removed from *agape*. As theologian Werner Jeanrond comments, 'self-love in terms of longing for the possibility of respecting and accepting one's finite humanity and its relational capacity does not enter into consideration here'.[66] In Kierkegaard, it is interesting to note that he recognizes the interdependence between self-love and interpersonal love, as *philia* does, but nevertheless, this ultimately negates any personal need, desire and even self-esteem that might exist independently of the will of the other—it is ultimately also the negation of the individual, this time, the lover. That is, every act that is *primarily* directed to one's eudaimonism (as Plato's *eros*) is considered fundamentally selfish. The confrontation between self-love and love of the other has important implications for a more coherent understanding of an ecology of loving.

---

[61] Nygren, *Agape and Eros*, 216.
[62] Ibid., 217.
[63] Ibid., 101.
[64] Barth 1958, Church Dogmatics Vol. IV p750, in Jeanrond, *A Theology of Love*, 123.
[65] Kierkegaard, *Works of Love*, 34-39.
[66] Jeanrond, *A Theology of Love*, 123.

On the one hand, *agape* introduces an aspect in the ecology of loving that must not be underrated: self-giving, or more drastically, self-sacrifice. The Christian Cross is the most illustrative symbol of sacrifice. Jesus literally gave his life for humans. As Paul asserts, 'walk in love, even as Christ also loved you, and gave himself up for us, an offering and a sacrifice to God'.[67] For Nygren, Paul's words mean that it is God who sacrifices himself for humans.[68] In Barth and Kierkegaard however, the presence of sacrifice is also present in a human's love of neighbour. Barth's whole idea of self-giving for the sake of the other is based on self-sacrifice.[69] Kierkegaard, similarly argues that 'love of one's neighbour…is self-renouncing love , and self-renunciation casts out all preferential love [e.g., human erotic love and friendship love] just as it casts out all self-love'.[70] It is not difficult to find sacrifice in the act of loving. For instance, many parents blindly dedicate their life for their children, or a friend gives a body organ for his ill mate, or others devote their lives for the conservation of Nature or some specific living-being. The important point here is that loving the other for its own sake implies, in many cases and occasions, acts of love that seem to bring no benefit to the lover. In many cases, people seem to give up part of their well-being or part of their lives for the sake of others, and in some cases, as happens in the example of the Christian Cross, the sacrifice is even total. Life is offered to a deity or given for the sake of the other, as many times a mother would do for her children. It is common to hear that the mother's love is probably the purest act of love. (I cannot disagree with this. Thanks mother for being always there, unconditionally supporting and nestling me!). Self-giving love also has consequences in the conservation and care of the Natural World. It is a disposition that is willing to take care of Nature for its own sake and to take risks that will challenge and change some destructive behavioural patterns. As Bratton suggests, 'the real challenge of agape is to get people to give to nature without expecting a material return or to be willing to bear burdens for the natural world without calculating the expected profits'.[71]

[67] Eph. V. 2 , in Nygren, *Agape and Eros*, 120.
[68] Ibid., 122, 132.
[69] Jeanrond, *A Theology of Love*, 122.
[70] Kierkegaard, *Works of Love*, 67.
[71] Bratton, "Loving Nature: Eros or Agape?,".

The notion of self-sacrifice denotes a key characteristic present in a*gape*. Its focus is directed to the object of love in itself and the lover is concerned for the sake of his beloved. The lover therefore, is prepared to give up something valued for the sake of his beloved. In this sense, love appears as something more complex than simply a personal need, as expressed in Platonic *eros*, and the always-present reciprocity implicit in *philia.* Neither *eros* nor *philia* consider the idea of self-giving and sacrifice in their accounts. Love in ancient-Greece is *always* beneficial to the lover. Everything seems to be done because of a personal need or, if for the other's concern, at least in a reciprocal relationship.

On the other hand, is self-sacrifice a prime and unique aspect of love in ecological terms? Although I agree that self-sacrifice is present in many cases of love, if considered alone, or instead of *erosic* needs and reciprocal *philia,* it would reduce the notion of love to the inexorable self-destruction of the lover. In the ecology of loving, the lover is also a member of the network of life, a subject that has to be loved, and a vital aspect of this is the love of oneself. The total negation of the human personal will, of personal needs, and of the benefits that reciprocal love brings, is an implausible and anti-ecological perspective. As I will argue in the last section of this chapter, in contrast to the extremist *agapic* view, I think that self-love is not synonymous with selfishness, but rather, it is fundamental to a coherent understanding of love in ecological terms. Self-love is vital for the constitution of the self, for self esteem, self-respect, self-consciousness, and also for the love of other human beings and other living and non-living beings. Self-love is a constituent aspect of the ecology of loving. For instance, in Chapter 3, we have seen how 'natural consciousness' can only emerge through a dynamic interweaving between self-consciousness, social consciousness and ecological consciousness, which are articulated through loving as a holistic phenomenon.

In this context, it can be said that *agape* goes from one extreme to the other. By rejecting any *instrumentalism* implicit in ancient-Greek philosophy, *agape* asserts that the lover is in fact a total *instrument* of his beloved—namely God and the neighbour. *Agape,* in this sense, tends to lose the focus of the lover as an entity that is not God but just a human being with biological,

ecological and cultural needs. As I shall argue later, it is essential to overcome any extremism like this.

Briefly, it is important to examine this topic from a broader angle. It is essential to situate the notion of love as a personal emotion complexly and dynamically interwoven in the lover's life and articulated in his ecological dimension. Self-sacrifice present in love cannot be explained as overcoming a supposed natural perversion of the will. A person gives up something valued because she wants something else 'regarded as more important or worthy', e.g., the well-being of the other. In this sense, there is something more basic in this disposition that might or might not be disclosed as sacrifice. Love in general, and self-giving in particular, is a deep personal and voluntary *desire* (or a will). It is a disposition that is ineluctably connected with the will of the lover, with his deep emotioning process. Also, loving the other for its own sake does not necessarily imply self-destruction and no personal pleasure. In contrast, most of the time, the desire to love the other in its autonomy and the practical contribution for the maintenance of its existence is *also* a great source of happiness and well-being for the lover. This is probably what Aristotle meant by the implicit 'usefulness' and 'pleasure' that perfect friendship brings. However, according to the tradition of *agape*, loving non-instrumentally cannot imply loving the other as 'good to oneself'[72]. Based on Aristotelian *philia*, Badhwar explains that this is however, 'false to experience'. As she states, 'happiness is related to end love not as a goal to means, but rather, as element to complex whole'. That is, as self-giving attitudes and sacrifice, self-eudaimonism is *also* part and parcel of the ecology of love.

***

[72] Badhwar, "Friends as Ends in Themselves," 167.

4.2. An Examination of Two Common Difficulties in the Western Perspective of Love

Difficult 1: Universalism of Love and its False Teleological and Progressive Understanding

A main difficulty in the understanding of love in our Western-European philosophical tradition comes from the epistemological belief in an objective and ultimate reality independent of the embodied-ecological existence of the individual. As I have explored in Chapter 1, this epistemology, which has been developed over a few thousand years (probably even before the philosophies of Socrates and Plato), accepts a transcendental explanation of the existence of life, humans, etc, and therefore centres its energy in a sort of endless pilgrimage to disclose it. As Maturana explains, the traditional Western philosophy is based on a conceptual background that asks for the ultimate 'essence', for 'the self', for the 'objective', for the final 'truth', and therefore transcends and ultimately negates the temporary or provisional existence of our humanness, the biology of our Cognition.[73]

This generates two interrelated difficulties for the understanding of love. First: there is an epistemological separation between the lover (traditionally referred to as 'the subject of love') and the beloved (traditionally referred to as 'the object of love'), so the internal emotioning and Cognition of the lover and his particular ecological existence becomes a mere passive 'receiver' of the 'external' and 'transcendental' qualities of the object of love. Second, because the lover is situated in a conceptual domain different from the beloved, the latter comes to be accepted as a universalized and idealised phenomenon—this being the starting point of teleological and political manipulations of love. My main concern therefore, is that this epistemological vision of love entraps and confuses the understanding of love as a holistic and ecological phenomenon that occurs through the human praxis of the living of each, unique lover—that is, as a 'relational' phenomenon that occurs during 'our living as loving animals'[74] and not in any objectively

[73] Humberto Maturana, "Biología del Tao o el Camino del Amar," in *Habitar Humano: En Seis Ensayos de Biología-Cultural*, ed. Ximena Y. Dávila and Humberto Maturana (J. C. Sáez, 2008), 71-72.
[74] Humberto Maturana and Gerda Verden-Zoller, *The Origin of Humanness in the Biology of Love* (Imprint Academic, 2008), 223.

predefined source or reason of love that would ultimately transcend this ecological phenomenon. Let me further explain these two difficulties:

The three traditions of love dealt with earlier (*eros, philia* and *agape*) are based on the acceptance of a transcendental, objective reality. From that standpoint, the three of them are focused on trying to find or define the *essence* of the beloved, of what love *is.* The three of them, although in different ways, are related to the predefinition of a universal or objective goodness. *Eros* sees the good in itself as the ultimate object of love. The good is the beloved which exists in a different domain that escapes from the natural world of human mortals (or lovers). Both *agape* and *philia* are influenced by this Platonic transcendental goodness. Traditional Christian *agape* divinises the good by claiming that God is love, a God that, culturally coming from a monotheistic revolution, tends to be treated as an external creator which stands above or beyond Nature. *Philia,* in its attempt to 'humanize' the beloved, claims that perfect friendship is between good people. But it is still based on the belief of a predefined meritocratic and aristocratic goodness that 'objectively' delineates how each lover loves and is loved. All these perspectives accept and seek the essence of the beloved, which transcends the unique perspective of the lover and its development in unique ecological relationships with the beloved/s.

In contrast, in order to begin to understand the ecology of loving, I think that it is imperative to leave behind this transcendental epistemology and to accept the bio-socio-ecological existence of the human being. We have seen that love is an emotion, a disposition, and, in ecological/relational terms, a manner of conversing. So, first, love should not be explained without accepting the emotioning and Cognitive dynamics of human beings. It is always the lover who feels, distinguishes and values its beloved; there is no independent, objective and transcendental object of love or beloved's characteristics. Second, the lover's reality, and its emotional loving disposition, is experienced and shaped ecologically. His participation in the network of life is fundamental to his survival and well-being. In this sense, it is important to consider the whole ecological medium in which the lover develops his life as a central aspect in the unfolding and cultivation of love. So, it is necessary to understand how love essentially emerges through human intimate and unique relationships. This, I believe, is essential to

understand the *holism* of love, that it is part of our bio-socio-ecological existence, and that it is a manner of conversing with other human beings and the rest of Nature.

Understanding love from the bio-socio-ecological existence of humanness, or what I also refer as the ecology of loving, is not only important in itself, but it is also important to leave behind the negative implications that a transcendental epistemology of reality and love have had for more than two thousands years. In particular I refer to the following: First, the idealization of love in objective or universal terms, thereby constructing a teleological (or rational and objective *goal directed* force) directed to attend a final status or condition, and second, as a consequence of the first, the emergence of moralistic and socially and environmentally destructive cultural behaviours, such as the construction of a culture based on endless progress and materialistic growth.

For Socrates, Plato and Aristotle, love mainly consists in the *attaining* of eudaemonism, which can be considered as the implicit philosophical starting point of a teleological vision of love. Vlastos explains this as follows:

> The Eudaemonist Axiom…, once staked out by Socrates, becomes foundational for virtually all subsequent moralists of classical antiquity. This is that happiness is desired by all human beings as the ultimate end (*telos*) of all rational action.[75]

Happiness in Plato's *eros*, we have seen, is related to *attaining* the absolute good or the beautiful, this being the ultimate end of love. This teleological perspective of love is not only philosophical however. The whole of Freudian psychology is based on the personal *eros* (an internal driver) to *attain* a temporary or final satisfaction, usually a sexual aim—love as an 'inhibited libido'.[76] Erich Fromm develops this vision, as the human anxious desire to *attain* union with other human beings and therefore overcome a supposed natural loneliness of the individual.[77] From an evolutionary point of view Wilson and Kellert understand and explain biophilia mainly through functional evolutionary terms to *attain* a better adaptation to the medium. In many ways, in our

[75] Vlastos, quoted in Bennet W. Helm, *Love, Friendship, and the Self: Intimacy, Identification, and the Social Nature of Persons* (Oxford University Press, 2010), 255.
[76] J. David Velleman, "Love as a Moral Emotion," *Ethics* 109, no. 2 (1999): 349; Singer, *The Nature of Love: Plato to Luther*.
[77] Erich Fromm, *The Art of Loving* (Thorsons, 1995).

Western consumer culture, love is also coarsely presented as a desire to attain the dream of happiness (or fame, physical beauty, economic wealth, etc) in a materialistic and artificial world—namely, what the neo-capitalistic culture has called 'the American Dream'. In other words, love is attached to, and most importantly, reduced to, causal or functional reasons. In this sense, love is understood as essentially a teleological phenomenon, and the so called objects of love, e.g. wife/husband, friends, goods, companion animals, Nature, etc, become just an instrument to attain a pre-defined goal. All this ultimately negates the particularity of love that emerges from unique individuals through unique embodied-ecological relationships, and also complicates the understanding of 'loving the other for its own sake'.

Commonly, this teleological perspective of love goes hand-in-hand with progressive thinking. We have seen that Plato's *eros* involves a predefined ladder that leads towards the perfect state of good (or beauty, immortality, happiness). *Eros* needs to escape from the ecological nature of life in the biosphere in order to generate a reason to love. In Christian *agape* this progressive thinking is illustrated in the construction of man focused on an ascending development toward purity; man is called to develop his goodness, to leave his inexorably sinful existence and to reach a pure love that embraces all that exists. This is also reflected in the psychoanalytic perspective. Here, a human being is understood as a developmental figure fundamentally focused on reaching maturity. In this sense, it is common to hear that there are mainly two kinds of love: immature love and mature love. (Many supporters of the *agape* tradition treat *eros* as immature and *agape* as mature love). As the philosopher Ilham Dilman explains Blint's psychoanalytical perspective of love, immature love is related to a primitive state, to an 'early form of love' that is not only present in the young child but also in most 'love relationships'. For Blint, immature love is clinically associated with a 'weak sense of self' and feelings of insecurity, unrealistic expectations and assessments of the other's capacity to respond to oneself, 'strong narcissistic tendencies', anxiety, envy, greed, control, etc. In this sense, people must 'outgrow such [precarious or immature] world' in order to develop 'adult' or 'mature' love.[78]

[78] İlham Dilman, *Love: its Forms, Dimensions and Paradoxes* (Macmillan, 1998), 13-15.

> [Immature love is] contrasted with a love where care and giving is unconditional and directed to the person in his separate existence. It is a love that is considerate, one that is capable of appreciating the other's pains and difficulties and responding to these. It is capable of appreciating his differences and tolerating his foibles and, indeed, his defects. It is mature in the sense that what makes the person capable of it is his having outgrown the very features from early life which stand in its way. Those features – patience, tolerance and respect of the other, unconditional care, appreciation and active concern, the ability to give emotional support, to bear his pains and shares his sorrows, to forego thinking of oneself – are themselves a mark of *moral* maturity. A person comes to them by growing out of what belong to his early affective life and through inner work. Just as a plant needs and take time to develop.[79]

I certainly agree with Dilman that we could consider adultness or maturity as including most of the characteristics that he presents. To be adult is something similar to being aware and responsible for ones autonomy and actions. My concern nevertheless, is about the belief that mature love is *only* constituted by teleological development towards a predefined state that must be differentiated from an early 'precarious' or 'imperfect' reality, in terms of human adaptation and relationship with the medium. It is a mode of thinking in which it is necessary to leave a deficient starting point (e.g., Fromm's idea about the initial isolation of the individual) and therefore to grow towards adultness. In this sense, a human being spends most of his life occupied in reaching or becoming what he is not, and the only way to do this is by *growing*.

I believe that this extreme functional rationalization of love is essentially cultural. It is part of a cultural manner of living that does not explain love in its complexity, but reduces it to levels in which there is no more love. These accounts of love, associated with a progressive mentality are ultimately an illustration of a major cultural paradigm primarily based on the idea of growing *towards perfection.* In our lives, several phenomena are essentially understood in this way: living beings are thought to grow to reach a mature reproductive state; human beings, in the same way, grow to be parents, grandparents, professionals, citizens, etc. Species evolve towards better adaptation. Our ideas and ideals also seem to maturate and become more certain, as a result of, for instance, modern scientific and philosophical knowledge. Even the economy is meant to grow. The economic flow of materials and energy must endlessly rise in order to produced

[79] Ibid., 16.

developed countries—and, unfortunately, with it, many other things also grow, such as massive deforestation and extinction of species, human population, life expectancy, air pollution, global warming, poverty, terrorism, etc.

Just to consider the multiple global eco-social crises that we have today should be enough to realize that there is something wrong in this mode of thinking and understanding of the human existence in general, and love in particular. A love that is understood in these terms, constructs a man that is essentially anxious, starving and nostalgic. The focal point of human existence is diverted, either to a better lived, told or created past, or to a better dream of the future. In this sense, love is commonly thought to be, not only a tool to recover or to attain a certain specific goal, but also to become that perfect state itself. The main problem is that, if the lover does not reach what he is intending to attain, life becomes a painful process. Again and again, being a *prisoner* of his own dream of a perfect state, the lover tries unsatisfactorily to get what he yearns. In the end, he becomes a slave of that unachievable perfection or final goal. Thus, in this frenetic process, he tends to lose not only the awareness and feeling of the spontaneous present in which life occurs, but with it, the possibility of really understanding and, most importantly, of feeling and experiencing love and the well-being or happiness that it brings. Thus Singer says:

> This mode of thinking [based on growth] is nevertheless unsatisfying. Its emphasis upon a teleological end or destination prevents it from appreciating the immediacy of life. …we must consider not only growth but also what is important to the individual who is having that experience *in the present*.[80]

In this sense, I think that, in order to explain and feel the ecology of loving, it is vital to leave behind any teleological and universalistic reductionism of love. As Singer comments, 'reductivist methodologies ignore the variegated character of our experience…We require pluralistic analyses that will clarify love's vast diversity'.[81] In Cognitive terms, love, as an emotion, occurs as part of a self-organizing process that happens in our bodies while being part of an ecology of relationships with other beings. It is therefore a phenomenon that emerges and is cultivated in the very process of living. In other words, our Western-European culture has tended to forget that life

[80] Irving Singer, *The Pursuit of Love* (Johns Hopkins University Press, 1995), 7.
[81] Ibid., 8.

is lived in a dynamic changing *present* and that, maybe, loving belongs more to that state—a spontaneous dance.

Difficulty 2: Union and Separateness, and the Misunderstanding of Human Ecological and Social Relationship

The Formation of a 'We'

Union and separateness are dualistic visions of humanness that when either presented alone or in a tension between each other, complicate any coherent understanding of human ecology. Accounts of union and separateness are also very common in the Western philosophy of love. Thus, I shall argue that any attempt to understand love from an ecological perspective would be misplaced if it did not overcome this dualism and any aspect implicit in it.

The entire union-separateness issue is perfectly illustrated in the myth of Aristophanes, as explained by Plato in the symposium, where two entities, male and female, desperately long for their reunification to recover the wholeness they were before Zeus separated them into two beings. Thus, Aristophanes argues that this longing for union with the 'other half' of oneself is precisely what love searches for (189c-191e). I am particularly concerned with two aspects of this dualism. First, the belief that humanness naturally exists in an inexorable separateness from its socio-ecological medium and that, through love, it eventually reaches a unity with it; and second, that there is a supposed 'union' that emerges from loving relationships, hence blurring the autonomy of the lovers. I will start with the latter.

The union vision of love is usually understood as a unified state, a third self, a 'we', that emerges from a loving relationship (especially romantic ones) and that transcends the autonomous individuality of the lovers. In other words, a new emergent entity is configured in the loving relationship. Here, a loving 'symbiosis', in Cognitive, physical and even metaphysical terms, blurs the original identities of the lovers—briefly, two lovers become one.

The union account is present both in Platonic *eros* and in Christian *agape.* The Platonic desire to reach the absolute objective good implies a merging with it. The obsessed lover becomes the

good itself. Christian *agape* uses Platonic idealism of absolute goodness and translates it into a human unification with God through agapic love.[82]

Both Soble and Singer emphatically criticise the union account that was born in Western philosophy thousands of years ago and that is still present in contemporary philosophy. Soble directs his criticism to Fisher and Nozick. Fisher argues that, in a loving relationship, persons form an ideal unified perspective, so lovers come to see the world from there. Eventually, the lovers are unable to distinguish their own personal desires. Every desire is shared in a way that the lovers act as one desiring entity.[83] Nozick also believes that the purpose of love is to extend the self in the formation of a 'we': Love is 'the desire to form and constitute a new entity in the world, what might be called a we'.[84] So, the 'boundaries' of each person 'change' in a way that each one 'becomes psychologically part of the other's identity'.[85] Singer focuses his criticism on Robert Solomon, who argues, in similar terms to the Aristophanes' myth, that love longs for 'merging of selves'.[86] Love, Solomon states, longs to form 'a shared self, a self mutually defined and possessed by two people'.[87] However, Soble and Singer argue that the creation of 'new selves' is misleading. Loving relationships cannot be explained in terms of losing the autonomy of the lovers. The union account transcends the autonomy of the lovers. It 'excludes their having an independent perspective on the world; it cancels cognitive autonomy'.[88] It would be like the 'old selves completely lose their different identities'.[89]

Singer proposes that to love someone necessarily implies an accepting of their autonomy.[90] So, in contrast to any union or 'merging' account, he proposes that in loving relationships (e.g. romantic love) lovers are interdependent. He says: 'Interdependence implies a preservation of the self, and

[82] Ibid., 23; Singer, *The Nature of Love: Plato to Luther*, 56-57.
[83] In Alan Soble, "Union, Autonomy, and Concern," in *Love Analyzed*, ed. Roger E. Lamb (Oxford: Westview, 1997), 70.
[84] Robert Nozick, "Love's Bond," in *The Examined Life: Philosophical Meditations* (Simon & Schuster, 1989), 70.
[85] Ibid., 72; Soble, "Union, Autonomy, and Concern," 72.
[86] In Singer, *The Pursuit of Love*, 23.
[87] Ibid., 24.
[88] Soble, "Union, Autonomy, and Concern," 72.
[89] Singer, *The Pursuit of Love*, 24.
[90] Ibid., 134.

therefore, it precludes the possibility of merging'.[91] This also implies that there is no new unified emergent self, and that lovers recurrently reconfirm their autonomy 'even though they give up various freedoms'.[92] So, it is imperative to overcome the union account in terms of a formation of a third self (a 'we') that transcends the original individuals. Rather we should understand loving relationships as 'interdependent' lovers in which they not only maintain their autonomy, but also, and most importantly, they *respect* and *enhance* their interdependent autonomies—this, I think, is the moment when love emerges.

The Union of Concern

Soble goes one step further than Singer and critically examines union accounts in which the lover is seen as desiring what his beloved desires, or as being concerned about what his beloved is concerned about, by directly *adopting* the beloved's desires or concerns. Soble calls this 'union of concern' and argues that it is incompatible with a fundamental aspect of love that he calls 'robust concern'.[93] Following *philia* and *agape*, Soble argues that love is based on 'robust concern'[94]—'*x* desires for *y* that which is good for *y*, *x* desires this for *y*'s own sake, and x pursues *y*'s good for *y*'s benefit and not for *x*'s'.[95] Robust concern therefore, as an attempt to explain the *philia's* and *agapic's* concern for the beloved 'for her own sake', implies both, to clearly distinguish between the lover's and the beloved's concern and desires, and to, at least, leave room for acts that would eventually imply certain sacrifices by the lover[96], since both lover and beloved have independent concerns and desires with (probably) different intentions. In this sense, Soble criticises any attempt that tries to explain robust concern in terms of a fusion of interests as Fisher does in his 'humble benevolence': 'I come to absorb your conception of your good'; 'I will tend to absorb not only your desires but your concepts, beliefs, attitudes,

[91] Ibid., 26.
[92] Ibid.
[93] Soble, "Union, Autonomy, and Concern," 80.
[94] Soble says the 'robust concern is, if not a conceptual requirement of love, a common feature of personal love, or more weakly, at least possible within love'. In Soble, "Union, Autonomy, and Concern," 68.
[95] Soble, "Union, Autonomy, and Concern," 68.
[96] See Helm, *Love, Friendship, and the Self: Intimacy, Identification, and the Social Nature of Persons*, 14-15.

conception, emotions and sentiments'.[97]The main difficulty that Soble visualizes in the union of concern is the *appropriateness* of the other's interests. Anything that is distinguished by the lover as part of his beloved (e.g., a desire to spend the day in the country) is 'absorbed' by him, so it becomes his desire—that is, strictly speaking, the lover is ultimately concerned about his own desires, thereby negating the possibility of loving the other for her own sake. A new totally common interest emerges in a way that the distinction between the autonomous interests (desires, concerns, etc) of the beloved and those of the lover are blurred. This also negates the possibility of any sacrifice in love, of any desire to do something that might be important for the beloved without any practical benefit to the beloved. In other words, the 'union of concern' negates any possibility of robust concern. As Helm claims, this union of concern is intrinsically 'egocentric'.[98] In response to Fisher, Soble proposes that

> the lover *x* need only comprehend or acknowledge *that* these are *y*'s values. Nothing in *x*'s wanting to promote *y*'s good in *y*'s sense necessitates that *x* must believe what *y* believes simply as a result of loving her and caring about her well-being… Further I am not convinced that when *x* loves *y*, *x*'s concern will be only humble, that it will be directed at securing *y*'s good only in *y*'s sense of that good. Sometimes *x* will be at least divided between doing well for *y* in *y*'s sense and paternalistically doing well for y in *x*'s sense of her good, if what *y* wants is, in *x*'s view, bad for *y*'.[99]

In union accounts in general therefore, there are not two autonomous persons interacting with each other, but, as Soble claims, 'only one enlarged person caring for itself'.[100] Thus, Soble concludes that robust concern and union of persons (either by the creation of a 'we' or by union of concern) are 'incompatible, and hence 'no theory of love can combine them'.[101] As I have pointed out in the review of *agape* and *philia*, to have concerns for the beloved for 'its own sake' is a central aspect of what it is to love. Union accounts try to explain this by totally negating the autonomy of a person's identity and Cognitive processes. It does not consider the possibility that loving relationships are between different entities that have different and unique perspectives.

---

[97] Mark Fisher, *Personal Love* (Duckworth, 1990), 26-27; also in, Soble, "Union, Autonomy, and Concern," 88.
[98] Helm, *Love, Friendship, and the Self: Intimacy, Identification, and the Social Nature of Persons*, 15.
[99] Soble, "Union, Autonomy, and Concern."
[100] Ibid., 91.
[101] Ibid.

Also, it generates an implausible Cognitive explanation of the lover's concern. It explains that to 'see' the other's interest is to directly 'absorb' or 'adopt' them as if they were objective aspects of the beloved that would be totally independent from the lover's distinctions (i.e. what I have reviewed in Chapters 1 and 2 as the passive and representational understanding of the phenomenon perception). In this sense, union accounts also misleadingly consider the beloved as an independent figure that transcends the lover's distinction.

So, if union is incompatible with robust concern, how is it then that the lover is able to be concerned for his beloved for 'her own sake'? I believe that Soble rightly considers what he calls 'robust concern' as a fundamental aspect of love, and also correctly clarifies the error in trying to explain it as a phenomenon of 'union of concern'. However, his notion of robust concern as an explanation of the lover's concern for his beloved for her own sake seems to me to be too general. It does not explain, or even consider, how this important disposition embodied in the lover would be associated with his intimate and particular loving relationships, nor how it emerges in the lover as a Cognitive (emotional-appraisal) process. In other words, robust concern, as explained by Soble, becomes ecologically and cognitively deficient and does not bring anything new to what we would not already find in its predecessors *philia* and *agape*. In contrast, as I shall argue later, I believe that to love someone or something *for her/its own sake* is a systemic phenomenon in which the lover's disposition is ineluctably interwoven with his eco-cultural existence, so it must be systemically explained in a way that can plausibly include, not only an appropriate understanding of Cognition, but also the recurrent ecological relationships that the lover has with his eco-cultural medium in general and his beloved/s in particular.

My second concern about the union-separateness dualism is about the belief that human beings are essentially lonely beings and it is through love that we try to overcome this state. This perspective is central in Erich Fromm's account of love, and is influenced by a modern developmental and psychoanalytic perspective of humanness.

Fromm argues that man, although part of the animal kingdom and Nature, inexorably transcends it. When a young child is born he feels 'one with his mother'[102]—that is, one with Nature. However, Fromm claims that man is 'gifted' with reason which implies the awareness of being a separated being. So, as the infant grows up, in a process that involves a departure from the mother's breast and from Nature, its awareness of separation is developed, and with it, an 'intense' feeling of 'anxiety' and 'aloneness' emerges. The most important intrinsic need of man therefore is to 'escape' from this separateness, to 'achieve union', 'to transcend one's individual life and find at-onement'.[103] If he did not overcome the 'unbearable prison' that this 'anxious' state of loneliness implies, he would become 'insane'.[104] Therefore, Fromm claims that the 'only' 'full' solution to overcoming separateness 'lies in the achievement of interpersonal union, of fusion with another person, in love'.[105]

> This desire for interpersonal fusion is the most powerful striving in man. It is the most fundamental passion, it is the force which keeps the human race together, the clan, the family, the society. The failure to achieve it means insanity or destruction – self-destruction or destruction of others. Without love, humanity could not exist for a day.[106]

So, in Fromm's view, the union of love is not only fundamental to overcome the separateness of human beings, but also it is vital for the establishment and conservation of ecological relationships and eco-social systems.

Fromm also argues that the union in love is not the same as the symbiotic union. He says that 'love is union under the condition of preserving one's integrity, one's individuality…love makes him overcome the sense of isolation and separateness…In love the paradox occurs that two beings become one yet remain two'.[107] In a similar fashion, Solomon argues that the 'shared self' that emerges from love is counteracted by the lover's desire to maintain his independency and autonomy.[108] However, I agree with Soble that this manner of presenting the tension between union and autonomy literally overlooks the problem that union in love implies. As Soble

[102] Fromm, *The Art of Loving*, 8.
[103] Ibid., 7-8.
[104] Ibid.
[105] Ibid., 15.
[106] Ibid., 14.
[107] Ibid., 16.
[108] In Singer, *The Pursuit of Love*, 24.

comments, 'the task of the love-as-union theorist is to explain, as Fromm does not, how or in what sense it is possible that Two become One yet remains Two, without undercutting the love they have in virtue of being One. To call it the paradox of love is to shirk this responsibility'.[109]

However, my main concern with Fromm's account is related more to a basic epistemological understanding of humanness that leads him to claim love as a desire for union. In particular, my concern is related to Fromm's understanding of man as an intrinsically 'anxious' and 'separated' being and, by extension, his comprehension of love as a sort of *reaction* to this problem. From a developmental understanding of humanness, Fromm argues that the more we 'emerge' from our primary bond with our mother-nature, 'the more intense becomes the need to find new ways of escaping separateness'.[110] I believe that this understanding of humanness implicit in the myth of Aristophanes, intrinsic in Fromm's account of love, and clinically explained by Freud with the Oedipus complex, might be correct when is detectable in those people who have probably not been loved during their childhood and infancy, but it is misleading when considered as a fundamental aspect of what a human being is. Why should we agree with Fromm that the awareness of our existence as authentic beings is necessarily a problem? There are two points related to the phenomenon of love that I think are important here and must be clarified. First, the feeling of separation must be distinguished from human autonomy. If we grow with a family and within an ecological environment that does not respect our autonomy, that negates our legitimacy, that does not encourage our self-love, self-esteem and self-respect, then there would probably emerge a painful feeling of separation from the world. The process of living of a man would be anxious. It would probably be underlined by several unsatisfactory intentions to love and to be loved. The need to escape from this sore situation, rooted in a nostalgic desire to be part of Nature again would be painful. I believe that this desire would be common in any culture in which love has been minimized, as I believe is globally happening in our Western-European culture. In this sense, I would agree with Fromm. But it does not have to be like this. In our development as human beings, we can grow in full acceptance of the people and the medium in which we exist, a medium that accepts our autonomy and our participation in it—that is, a

[109] Soble, "Union, Autonomy, and Concern," 70.
[110] Fromm, *The Art of Loving*, 9.

medium that loves us and that humbly 'invites' us to love. That kind of life which, as we have seen in Chapter 3 about the biological bases of love, is an essential part of the biology of humanness, and it is not based on any supposed essential 'anxious separation' or 'aloneness'. On the contrary, it is a life that happens more in its spontaneous present; in our present without the negation of our autonomy, without the anxious desire of escaping from either ourselves or from our eco-cultural present. In other words, man here is understood as a loved autonomous individual in intimate coherent relationship with his medium. Thus, anxious awareness of separation is not synonymous with autonomy and is not necessarily intrinsic to humanness.

Second, with the distinction between human autonomy and human separateness, it should be clear therefore that love should not be understood as a *reaction* from the supposed intrinsic human separation. Dilman criticises Fromm on this point:

> Love is not sought as a solution to a problem. The question, 'why do human beings love, why is there love among human beings?' comes from confusion. Human beings love, just as they speak and think. This is something to note, to wonder at. We can ask, what makes the existence of love among human beings possible, what this possibility presupposes. ...As for the question 'why did Romeo love Juliet?', the answer is 'for no reason' if the love is authentic. Or taken different way, we can answer: because they lived in close proximity, saw each other, they appealed to one another, etc. – something along these lines. If the answer is an actual instance were something like, 'because he was very lonely; he wanted a remedy to his lonely', then we would suspect that his love was not genuine, not authentic.[111]

I think that Dilman's point is correct. However, the focus of the criticism should not be whether Fromm's answer to the question 'why human beings love?' is authentic love or not. We have seen that love, as an emotion, is part of a manner of living in conversation that emerged millions of years ago, systemically configuring a biological basis of humanness and, with it, a fundamental manner of ecologically intimate conviviality. In this sense, love would be a primary form of humanness and 'anxious awareness of separation' fundamentally the result of a failure or absence of loving—namely, a psycho-physical and eco-cultural disease.

In these sense, love, I believe, is neither a reaction to an intrinsic human problem, nor the desire to go back to our primary physical symbiosis with our mothers. Nor is it a desire to unite

[111] Dilman, *Love: its Forms, Dimensions and Paradoxes*, 122.

ourselves with other humans. In contrast, I believe that it is vital to overcome the union-separateness dualistic 'paradox', if we want to understand love from a more ecological and systemic perspective. As we have seen in the last chapter and also in Aristotle's *philia*, human intimate relationship (and not union or separateness) is a fundamental aspect of the phenomenon of love. Love understood as a relationship of a certain kind between the lover and the beloved instantaneously overcomes any union and/or separation account. It provides the opportunity to explain love without negating the autonomy or legitimacy of both the lover and the beloved, as union accounts do. Also, it makes room to understand love as a spontaneous and continuous event that systemically happens in *all* human developmental stages, and therefore, overcomes any attempt to understand love as rooted in or disrupted by any objectively predefined specific human stage.

***

4.3. Steps to a Synthesis of an Ecology of Loving and Co-designing in Love

The traditions of *eros, philia* and *agape* can be considered as the philosophical and epistemological basis of the Western understanding of love. Most of Western, philosophical accounts of love have been based on or influenced by, either explicitly or implicitly, these three visions, sometimes as a faithful reflection of a particular one, and sometimes as a complex mixture of all of them. However, *eros, philia and agape*, and the traditions they have created, do not constitute a whole unified vision. In contrast, they come from philosophical positions that are, in many cases, contradictory.

In my short review of the conceptual roots of these traditions, it is possible to see how the three of them offer a rich spectrum of concepts and elaborate ideas that either contribute to or counteract the explanation of a coherent understanding of love in bio-socio-ecological terms, or what I have referred as 'the ecology of loving'. Because of this, a more coherent explanation of love in bio-socio-ecological terms can neither be totally based on one of them, nor literally emerge from a synthesis of all of them. The three of them, as I have examined, share some epistemological bases that are contrary to the bio-socio-ecological existence of humanness. Thus, the task has been not only to consider some ancient ideas that seem to be central to an ecology of loving, but also to depict and leave behind some of their contradictions (or dualisms), and to overcome their shared epistemological difficulties.

So, my intention now is to explore and propose some significant elements of an initial synthesis of an ecology of loving from a bio-socio-ecological perspective. My argument will be supported by linking some of the ideas examined in the previous sections and chapters and also by including ideas of other contemporary authors interested in the phenomenon of love.

This initial synthesis is not only about wondering about a vital aspect of humanness, but also, it intends to continue to argue that it is only through conversing-in-love that a truly social and ecological humanness emerges and is conserved.

From this synthesis, my intention is also to argue and claim that the ecology of love is the emotional and relational basis of ecological design. I have defined the notion of design as a type

of conversation, particularly as a conversation that is about facilitating other conversations. I have said that one of the fundamental consequences of this understanding of design is that the act of designing is always done in a particular manner which is determined by the emotions that are present in the conversing designers. Now, I will argue for the most important claim of this thesis, that *co-designing-in-loving is the foundation of what is usually called 'ecological design'*[112]. That is, I shall argue that ecological design can only be practiced through loving conversations, particularly co-designing-in-loving. So in order to explain what ecological design is, it is necessary to understand the ecology of loving.

In general linguistic terms, the concept of *'co-designing in loving'* means the following: The prefix *co* refers to the kind of design that is necessarily co-operative—it is a conversation between several related actors who cooperate with each other. The suffix *loving* clarifies the manner in which these designers converse with each other and with the rest of their eco-systems. In the following pages, I will interchangeably use the concept of 'ecological design' and 'co-designing in love'.

My investigation towards a synthesis of an ecology of loving and co-designing-in-love deals with the following points: (1) love as an emotional-personal disposition; (2) the meaning of 'loving the other for its own sake'; (3) the fundamental inclusion of self-love in the ecology of loving; (4) the interdependency between consensual-cooperative relationships (or relationships with high intimacy) and respectful-passive relationships (or relationships with low intimacy); and (5) loving as the spontaneous and conscious acceptance of oneself and the other as part and parcel of the ongoing process of life—as part and parcel of the flow of the present. These points can be reformulated in the following questions: (1) What is the disposition of love or the lover's disposition? (2) What does it mean to love the other for its own sake? (3) How does the phenomenon of self-love constitute an essential aspect of the ecology of loving? (4) What is the relational spectrum of the ecology of loving? (5) What is the art of loving?

[112] Others like to call it Natural Design, Salutogenic Design, Green Design, Sustainable Design, Deep Design. I suggest that Co-designing in loving is the basis of them all.

I will conclude each point with the basic implications for the understanding of the phenomenon of co-designing in love and the socio-ecological ethics that it naturally entails. Each implication is examined under the common subtitle 'Steps to Co-designing in Love'.

Finally, it is important to stress that dealing with these questions is a first approach, a *step*, towards an eventual synthesis of the ecology of loving and that of co-designing in love. Further investigation is needed in order to offer a more complete synthesis of them. By now I can only focus on essential aspects of this synthesis.

4.3.1. What is the lover's disposition?

I always feel delighted and moved when I see the marvellous moment of a mother having her first encounter with the baby to which she has just given birth. An intense, sweaty and painful process seems to instantaneously disappear when the mother turns her sight down and sees her delicate and innocent child emerging from between her legs and crying for the first time. From the depth of her stressed and blood injected eyes, an immense delight and tender force emerges, illuminating her eyes, softening her face, making her smile, and reconfiguring the whole posture of her body to nestle the child in her arms. In a few seconds, a *loving disposition* seems to intensively bloom in the mother, marking the starting point of a new stage of what might be a loving-intimate relationship with her child.

But what is, or what do I mean by, a 'loving disposition' or the 'disposition of love', and how important it is for the ecology of loving? There are two implicit concepts in the great natural event described above that may help us to deal with this question, and that are commonly treated as important aspects of loving.[113] They are that the lover (in this case, the mother) is deeply *interested in* and also *identified with* the other, the beloved. These two concepts suggest that, first, a loving disposition is a personal state, an individual feeling that emerges in the lover. Or alternatively, it is an emotional state which is part of a self-organizing intention. They also imply that a loving disposition is not a solipsistic phenomenon, but it is Cognitively influenced, or articulated through, perceived and experienced ecological encounters with the beloved. In

[113] See for instance, Harry G. Frankfurt, *The Reasons of Love* (Princeton University Press, 2004).

negative terms, this suggests that, if there is not a *personal* interest in and identification with the beloved, there is no loving disposition, and therefore no loving phenomenon of any kind. However, to be interested in and identified with the other may suggest that the notion of love is only a personal and ecological event. But these are immensely broad concepts, and do not clarify the most important thing about this emotioning which is *how* the lover is interested in and identified with the other.

Recalling the *eros* and *agape* traditions of love, particularly some of their conceptual bases (or ideas that can be philosophically attributed to each of them), might contribute to advancing our wonder. The Platonic-Freudian *erosic* tradition appears as an important contribution in reaffirming that the notion of love in general, and the loving disposition in particular, is, first of all, an ineluctably personal, embodied state. E*ros* is commonly described as the *will* of an individual, an essential '*internal driver*' that defines a mode of acting. This might be treated as a meta-concept for what I have described as human emotioning. Also, the loving disposition appears in *eros* not only as a personal interest in and identification with something in particular, but also, in broader terms, as a basic human need. This *erosic need* is consistent with the biological aspect of love in socio-ecological terms, as reviewed in Chapter 3—namely that human beings are loving/biophilic beings, so they need to love and be loved.

However, in *eros* there is a main obstacle to our exploration of 'the loving disposition'. This specifically relates to the attitude that an *erosic* lover has towards the other. As it is commonly described, *eros* is a personal disposition that values the other depending on its ability to satisfy the lover's predefined interests. An *erosic* disposition would primarily respond positively to anything or anybody who would satisfy the pre-defined yearning of the 'lover'. Because of this, *eros* has been repeatedly accused of perceiving and treating the other instrumentally or as a means to an end and therefore this, mainly instrumental attitude towards the 'beloved', is anything but a loving disposition. In this sense, the personal will or need to love (and being loved) must be distinguished from its association with an instrumental disposition towards the other. The disposition of love can then be understood as a broad and basic personal will or need, not in terms of a predefined desire that establishes a relationship with the other instrumentally,

but simply as part of the bio-socio-ecological *essence* of what humanness means. However, this still does not define *how* the lover is interested in and identified with the other in a particular relationship.

At the other extreme, I have examined the *agapic* tradition (and particularly Christian-*agape*) which, almost as a response to the *eros* tradition, emphatically proposes that love is not based on any 'response' to value, but on the contrary, as Nygren proposes, it 'creates value' on the object of love by loving it. The other becomes 'worth' when it is loved. In this disposition, the lover is identified with the other who emerges as a legitimate other without the need to justify itself in any instrumental way. This seems to me, to be a fundamental aspect of the loving disposition. In other words, it is the basis of *how* the lover would value, see and treat his beloved.

However, I have also suggested that *agape* also evokes a vision that transcends the lover's will or needs and overlooks the importance of particular loving relationships for the emergence of a loving disposition in the lover – all this, in order to conceptually free itself from the *erosic* instrumentalism and the *philic* particularity and (implicit) reciprocity that would conceptually negate the love of everything (the neighbour) unconditionally. In this sense, then, *agape* becomes a depersonalised account of love, and with it, is incapable of explaining how love emerges as a *personal* disposition. In the end, the lover's internal will or need and its capacity to personally value the other is negated. The lover is negated as the agent that values the other from his own disposition. Strictly speaking, in the *agapic* tradition, God, representing a metaphysical force, is, in Callicot's words, the 'sole legitimate arbiter of value'.[114]

In this context, both the *eros and agape* traditions offer us some important concepts for the understanding of the disposition of love. Yet both of them also evoke some polarised concepts that negate the disposition of love, and that make it very difficult (if not impossible) to create a simple synthesis between the two.

Furthermore, there is a central difficulty that both traditions share: the subject-object separation—the belief that there is a transcendental, objective world 'out there' to be depicted.

[114] J. Baird Callicott, *In Defense of the Land Ethic: Essays in Environmental Philosophy* (SUNY Press, 1989).

While the *eros* tradition seems to respond to objective value *received* from the 'object of love', the *agape* tradition is an affirmation of the value of the other as an authentic other but (metaphysically) transcending any lover's Cognitive process. So, I think that a more coherent ecological synthesis of an ecology of loving must overcome the *eros-agape* dichotomy and the subject-object separation that both of them imply.

Although based on different arguments, Velleman, Badhwar, and Singer, seem to affirm that the disposition of love is a *personal attitude* (coming from an *erosic* tradition), in which *the other is seen as an authentic being* (coming from an *agapic* tradition).

Implicitly overcoming the depersonalization of the *agapic* tradition, Velleman explains love as a personal 'attitude towards the beloved' which is not searching for any predefined instrumental result, but rather, it is the [arresting] awareness of a value inhering in its object'.[115] With this, he means that a loving attitude (or disposition) 'arrests our tendencies toward emotional self-protection from another person, tendencies to draw ourselves in and close ourselves off from being affected by him. Love disarms our emotional defences; it makes us vulnerable to the other'. So, this loving 'attitude' that 'disarms our emotional defences' and makes us 'vulnerable to the other'' is a 'matter of "really looking"' at the beloved.[116]

The disposition of loving, as illustrated in the mother's first encounter with her child, is called by Badhwar 'the look of love' and seems to unify the disposition of love as a *personal* process with a manner of seeing the other in its authenticity:

> The look [of love] is a perceptive look, a look that seems really to *see* the loved object, not a falsifying look of projection and fantasy, or a self-centred look of appropriation. And, seeing the loved object as it is, the look of love seems to affirm the object's value in its own right.[117]

Singer sees love as an essential type of personal valuing that he calls 'bestowal'. As opposed to a disposition that sees the other in instrumental or utilitarian terms, bestowed value 'is created by

[115] Velleman, "Love as a Moral Emotion," 354, 260; See also, Neera K. Badhwar, "Love," in *The Oxford Handbook of Practical Ethics*, ed. Hugh LaFollette (Oxford: Oxford University Press, 2003), 47.
[116] Velleman, "Love as a Moral Emotion," 361.
[117] Badhwar, "Love," 43.

the affirmative relationship *itself*, by the very act of responding favourably, giving an object emotional and pervasive importance regardless of its capacity to satisfy interests'.[118]

Velleman's, Badhwar's, and Singer's words seem to me to be very plausible in terms of depicting the specific 'character' of the loving disposition. However, none of them explain this disposition in a way that is coherent with the Cognitive, and therefore embodied-ecological aspect of a human being. In fact, although the three of them conceive the disposition of love as a personal 'attitude', 'perception' or 'valuing' process, it seems that they still construct their argument from an implicit subject-object separation, and that they understand the perception of the beloved in passive, representational terms. However, Singer marks an important exception that is in line with the tradition of *agape*. He says that bestowal value is a human distinctive disposition that *creates* value; it makes the beloved valuable by loving it. This, I think, implicitly allows for room to examine what '*to create value* on the beloved by loving it' really means in Cognitive terms and therefore overcomes the subject-object dichotomy intrinsic in the Western philosophy of love.

Eros, it has been said, is an internal powerful driver. Linking this idea with a Cognitive perspective, in its most basic embodied state, love is an emotion. As such, Loving is a particular self-organizing intention, a particular 'disposition that defines an action'—a particular self-organizing 'state of expectancy', in Freeman's words. But, I have also suggested that human emotioning, and especially loving, is not a solipsistic event, but rather an intrinsically socio-ecological one. So, a loving disposition is an individual's particular emotional manner of perceiving and experiencing his niche in general, and his beloved in particular. This perception-experience is not however a passive representation of an external world 'out there'. For instance, when the mother perceives her baby for the first time, she is not having a representational figure of the baby in her nervous system. As I have already discussed, the nervous system is organizationally closed—it does not have input/output mechanisms of interaction with the 'external' environment. What happens, in contrast, is that the mother 'brings forth' her baby who then only 'triggers' an internal self-organizing dynamics that constitutes and cultivates, from the

[118] Singer, *The Nature of Love: Plato to Luther*, 5.

perspective of an observer, *a loving disposition* that will consequently *define* or *create* a particular 'state of expectancy', a manner of seeing, looking and treating the other as an end in itself (in this case, the baby). That is, the mother's disposition of love is *her* emotioning, *her* valuing process, determined by *her* internal Cognitive dynamics that creates a world and values the baby in a specific manner.

Thus, this explanation overcomes both the *erosic* tradition of understanding the lover as instrumentally responding to a sort of objective value implicit in the beloved, and the *agapic* view of the lover as affirming a sort of transcendental and metaphysical value of the beloved that exists independently from the lover's emotioning. In other words, it overcomes the subject-object dichotomy traditionally present in the Western philosophy of love.

In more specific terms, this explanation also helps to overcome the *agapic* idea that a loving disposition is the negation of the lover's will. A loving disposition is not the 'arresting' of the will in order to 'really look' at the other, as Velleman suggests following a clearly *agapic* tradition. In this sense, this explanation also overcomes Velleman's implicit *agapic* idea that self-love must be 'arrested' in order to love the other.[119] Totally arresting self-love would signify eliminating any lover's chance of feeling delighted and contented in any given loving relationship. But this would be false to experience. The mother's disposition of love towards her newborn child is *also* one of pure delight and joy. As I will argue later, self-love and the love of others are ecologically interdependent. The fact that the disposition of love and the creation of value in the beloved is a personal and internal process means, among many things, that to love is *important* for the lover. Love, as an emotion, is part of a complex Cognitive process that allows the lover to maintain his existence. Loving has a direct influence on the lover's well being. It is a basic human need. In this sense, we can say that to love *is not a disinterested* disposition. But before we accuse this vision of being instrumental or selfish, it is important to depict the *manner* of looking implicit in the loving emotional disposition.

[119] Badhwar, "Love," 47.

Following an *agapic* tradition, I agree with Velleman, Badhwar and Singer that love implies overcoming an *erosic* instrumentalist disposition towards the other. The loving disposition is the personal emotioning (intention or will) of being focused on the other, of opening to the other, to bring forth 'the other as a legitimate other'.[120] That is, the value that the lover 'bestows' on the beloved is fundamentally to see it in its legitimacy. In this sense, the disposition of love is also *disinterested*[121] in terms that it does not use the beloved as a tool to reach a personal aim, but rather it considers primarily the conservation of the legitimacy and well-being of the beloved—namely to love the other for its own sake. Frankfurt arrives at a similar position as follows:

> Love consists most basically in a disinterested concern for the well being or flourishing of the person who is loved. It is not driven by any ulterior purpose but seeks the good of the beloved as something that is desired for his own sake.[122]

The disposition of love is a manner of looking that, borrowing Velleman's words, is 'attentive'. But attentive to what? I think that it is attentive to both oneself and to the other. The loving disposition is the essence of truly ecological attention. It is a unique approach to oneself and to the other in their respective autonomies. It is about giving up the frenetic and distracted intention to always be 'there', wherever, to always talk, to say anything, whatever. It is to be humble with the voice, particularly ones own voice. It is ultimately to be attentive to one's body, to one's emotioning, to one's will, to pay attention to that interior that cannot be explained or codified in words; and through that, from that intimacy with oneself with no discourses, no noise, no masks, no prejudgment, to be spontaneously attentive to the other for its own sake. The disposition of love is the essence of really approaching oneself and the other. It implies a new form of listening, a listening with love, with attention.

> Is listening from then on changed? Less passive in a way, which is not to say less attentive? Would it be more polysensorial? It is more concerning about communicating with the other –

[120] Humberto Maturana, *Emociones y Lenguaje en Educación y Política* (J. C. Sáez Editor, 2005).
[121] Frankfurt, *The Reasons of Love*, 42.
[122] Ibid.

> and with oneself – than about discovering the exact and definite sense of a being, to teach to the other.[123]

Thus, the loving disposition is the emotional, fundamental nature of any loving conversation, of any truly ecological action. Again, if there is no loving disposition, there is no loving relationships (or any ecology of love) of any kind. Changing the way we converse with Nature (which includes human beings and the lover himself) implies a change in the way we listen, or strictly speaking, it implies *starting to listen to Nature*, that is, to oneself and to the other.

Steps to Co-designing in Love

I have presented the notion of design as a form of conversing, and ecological design as a form of conversing in/through love. In the Global-Western culture however, the association between design and the notion of conversation in general, and human emotioning in particular, has been generally ignored. Design and emotions have rarely been dealt with together. Design is thought to be just about rational-instrumental actions. Obedient to this epistemology, Western man (or designer) has embarked on an endless process of making things, thereby building a super technocratic society—the society of big industries, supermarkets, multinational factory farms, the internet, etc. All of this encourages him to go faster, to keep constructing in order to endlessly grow and improve. It is thought, and commonly taught, that any problem or obstacle can be solved by designing a new thing or technology that will eventually fix or replace the 'obsolete' one. Innovation is reduced to the improvement of technological efficiency. Briefly, designing is commonly understood as a pursuit of making and making, innovating and innovating, tirelessly putting one brick over another, going vertically up into the sky, to be over Nature, to dominate It, to legislate over It. In this frenetic process however, it seems that man has not ceased, in Irigaray's words, of 'moving away from himself', from Nature—his nature. This is the design of noise; it is deaf design. Under this epistemology, ecological design is primarily presented as a manner of constructing a new world by improving technology and efficiency, and becoming more sophisticated. In this attempt, the so called ecological designer might create new solutions—namely, innovative technologies, but, unfortunately, he would still fail in approaching

[123] Luce Irigaray, *The way of love*, trans. Heidi Bostic and Stephen Pluháček (Continuum International Publishing Group, 2002), 24.

himself to Nature—to the other and to himself. This is a vision of ecological design that may change methods, but it would still maintain the form, namely, its *deafness*.

Ecological design however implies a change of form, which essentially means a change of the emotions that have been defining human dispositions or intentions. In practical terms, ecological design is about approaching and relating to the other, to the rest of Nature sustainably. It is about creating a world in cooperation with other human and non human beings. But how is this possible? What is the essence of this practice? It will never be possible by way of a technocratic design which negates the essences of humanness (e.g., its emotioning). In contrast, as a conversation, ecological design will emerge when it is realized that the *first* and most important action in an ecological conversation, that is, in a loving conversation, is not about giving 'speeches'[124], teaching the other, proposing new ideas, new technologies, or making or creating new solutions. Rather, *it is listening to oneself and to the other in their legitimacy*. Listening is the primordial, most important, action of ecological design. Without listening, the action of designing becomes noise and is ecologically displaced. The disposition of love is the only emotion that allows for going back to Nature, to listen to oneself, and from there, spontaneously to start listening to the other. This is the essence of really approaching the other as an authentic other and beginning to converse in love—namely, to co-design-in-love in a world based on listening to each other.

As a kind of emotioning, the loving disposition is spontaneous, 'not a falsifying look of projection and fantasy' as pointed out by Badhwar. As any emotion, a loving disposition is part of a self-organizing dynamic. In other words, it is not possible to 'design' love. A loving disposition is not a product of instrumental-mechanical reason, but rather a disposition that defines a mode of living—a mode of designing. Thus, ecological design is only possible when the designer's emotional disposition is primarily a loving one. In summary, it can now be said that without a loving disposition, there is no listening to Nature, no real approach to oneself and to the other, and therefore no loving conversation, and no co-designing in love or ecological design.

[124] Irigaray, *The way of love*.

Ecological design, as a conversation that happens with other human and non-human beings cannot be understood without ethical concerns. Ecological design is fundamentally ethical. I believe that the disposition of the lover (and more specifically, of the ecological designer) is also the fundamental nature of a bio-socio-ecological environmental ethics.

In response to the arrogant and domineering attitude of the Western-European culture towards other living beings, natural ecosystems and the whole ecosphere, and, as a consequence of this, to the many environmental crises that we are facing, environmentalists, activists, conservationists and ecological philosophers have emphatically defended and promoted the necessity for an ethics that goes beyond anthropocentrism. In the philosophical domain, for instance, Peter Singer has emphatically defended the right of other animals to live, or what he calls, the Animal Liberation[125]; Baird Callicot has focused on the importance of valuing species conservation[126]; and, Aldo Leopold's Land Ethic, argues for the vital necessity to protect natural ecosystems as a whole.

Many environmentalists have tried to find the essence of an environmental ethics by looking for an objective and transcendental reason that would free the value of Nature in general and non-human individuals in particular from utilitarian, selfish and instrumental human dispositions. Although it seems plausible to argue that a truly environmental ethic is essentially non-instrumental, I think that trying to find an answer in a domain that transcends humans as the agents of value (as happens with the *agape* tradition) is not plausible. This would ultimately signify negating the biological and eco-cultural existence of humanness. So, by proposing that the disposition of love is the core or the basis of environmental ethics, I essentially mean two things that may help us to understand environmental ethics without the difficulty that objective and transcendental accounts imply.

First, as a self-organizing emotion, I have said that loving is ineluctably creative. That is, emotions are embodied states that define and create ways of living a world. This, I have stated,

[125] Peter Singer, *Animal liberation: a New Ethics for Our Treatment of Animals* (New York review: distributed by Random House, 1975); Peter Singer, *The Animal Liberation Movement: its Philosophy, its Achievements, and its Future* (Old Hammond, 1986).
[126] Callicott, *In Defense of the Land Ethic: Essays in Environmental Philosophy*, 129-155.

overcomes both a subject-object dichotomy and the epistemological belief of the existence of man's supposed capacity to access an objective, transcendental reality-world. In this sense, and also following Hume's 'sentiment-based ethics'[127], the 'source of all value' (for instance, the value of another human being, a plant, or the value of a species, or Nature, or life) is ineluctably attached to and ultimately dependant on human embodied emotioning (or 'on human consciousness'[128], as stated by Callicott). The beloved does not have inherent and independent value. It is the lover who creates value on the beloved by adopting a particular disposition. The way a person values the other, that is, *how* he sees and treats the other, depends on *his* particular emotional disposition.

Second, based on the tradition of *agape*, and in line with Hume's theory of affection and Maturana's biology of Cognition and biology of love, the value of the other (a human and non-human individual, a species, and Nature as a whole) becomes truly ethical only when the valuer looks at (or brings forth) the other with love, that is, when an individual treats the other as an authentic other. Briefly therefore, an environmentally ethical disposition is personal; it is based on the individual's embodied emotioning, and only emerges and is cultivated when the individual is in a loving disposition which intrinsically involves creating value on the other *qua* other, for its own sake.

4.3.2. What does 'to love something for its own sake' mean ?

In the last couple of decades, there has been a proliferation of philosophical, biological and ethical accounts arguing that love is essentially about being concerned about the other 'for its own sake'. For instance, as I have briefly reviewed, Velleman, Singer, Badhwar, and more recently Frankfurt, have generated their respective philosophies of love along this line. We have also seen that Maturana's 'loving the other as an authentic other in co-existence with oneself' is the essential emotional disposition that explains his 'biology of love'[129] Furthermore, arguing for the intrinsic value of individual animals, species and the environment as a whole, several

[127] Peter S. Wenz, *Environmental Ethics Today* (Oxford University Press, 2001), 156.
[128] Callicott, *In Defense of the Land Ethic: Essays in Environmental Philosophy*, 133.
[129] see Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*.

branches of environmental ethics have based their theories, either implicitly or explicitly, on the necessity to also see Nature and Nature's components non-instrumentally.

However, this line of understanding and explaining love started several thousands years ago. In its millenarian journey, it has been constructed from different (and sometimes incompatible) approaches. Based on the historical roots of this term and the complications that they imply, and partly following the authors mentioned above, my task now is to wonder about the question, 'what to love the other for its own sake means in bio-socio-ecological terms'—namely, how can we understand this important expression in the ecology of loving? More specifically, my argument will be based on a *systemic* view of love and on the awareness that loving the other for its own sake must be applied beyond inter-human love.

Western philosophy, theology and ethics has been trapped in a conceptual dichotomy between the traditions of Platonic (and Aristotelian) good that may appear instrumentalist and *agapes's* love of the other by being totally indifferent to value. I think the only coherent way to understand the phenomenon of love is to understand the essential complication that this dichotomy implies, overcome it, and ultimately try to explain what to 'love the other for its own sake' means in more holistic, ecological and systemic terms.

As I have previously said, Aristotle's 'complete friendship' seems to be the first Western philosophical account that proposes that loving the other means being concerned 'for her own sake'. Nevertheless, Aristotle's association of love with a transcendental good generates an inexorable difficulty in understanding this disposition towards the other. The other seems to be ultimately loved because it is good, therefore being reduced to this transcendental, objective notion. In this sense, just to love someone *because* it is good would appear to be as instrumental as loving them because it is 'useful' or 'pleasant'—the other two forms of friendship proposed by Aristotle.

Thus, it could be said that Aristotle's *philia* is still very close to the Platonic-Freudian tradition of *eros*. The philosophical idea of transcendental goodness implies, among other things, that in the practice of loving, the lover is ultimately focused on the attributes of the other. In systemic terms,

we could say that the tradition of *eros* is focused on the *structure* that constitutes the beloved. It is the love of particular components, the structure of a system, as perceived and valued by the lover. It is clear in Plato's *eros* that, although the lover would try to make his beloved virtuous, the lover is interested in particular things or ideals which are rooted in his particular and personal needs that he must satisfy. I have reviewed that, because of this, the *eros* tradition has been recurrently accused of being an instrumental attitude towards the other.

The tradition of *agape*, on the other hand, overcomes this instrumentalism and reduction by defining itself as the only account that truly loves the other for its own sake because it is totally indifferent to the value of the other. In systemic terms, *agape* loves the whole, the unity in its totality, and so, for instance, it loves humans qua human beings. It is an unconditional love that is totally blind to the beloved's characteristics. A*gape* is the love of the *form*, of the general class identity of something, such as 'life' 'humanness', 'the other', or 'the neighbour'. However, I have questioned the possibility of loving a particular other without attending to the character or value that ultimately makes it a unique subject. I have said that because of this, *agape* becomes depersonalised, incapable of loving the other in its individuality.

Our eco-cultural existence, I have explained in Chapters 1 and 2, is part of what it means to be a human being. As ecological beings, a great part of our relationships is with *particular* others (things/beings). Although we are able to define the form of a certain thing in universal terms, this does not free us from our particular relationship with particular others constituted by particular structures. In other words, as human beings that exist in language, we are certainly able to describe the general form of different things, e.g. the organization of humanness, living beings, planets, stars, galaxies, etc. We may even be able to love them as entire wholes, this being an important aspect of a 'natural consciousness'. However, all these universal wholes are based on and perceived from a particular eco-cultural reality that each of us lives, and which is experienced with unique beings, things, and even ideals.[130] To say that we can love, for instance,

[130] We could apply this even to the dimension of abstract ideals. Our description of goodness, for instance, is ineluctably attached with our personal eco-cultural experiences: the ideal good is always a personal and particular good. Also, Singer suggests that human beings love not just person, but also thing

human beings qua human beings (as Christian *agape* asserts) would be impossible if we have not had particular relationships with particular human beings in the first instance. And each of these human beings, I claim, is a unique being because it is constituted by a particular, always-changing *structure* that determines its path of living moment after moment.

Thus, the main difficulty of the traditional *eros-agape* dichotomy can be understood and summarised as follow: On the one hand, loving the whole without perceiving and attending to its constituent components, leads the other (the beloved) to become an abstract and generic form. This would transcend the lover's particular ecological existence that occurs in the interaction with particular things. This is what an extreme *agape* tradition proposes. On the other hand, if the lover just focuses on some particular components of the other (those for example that may satisfy the needs of the lover), he would not be able to perceive the interconnection between them and the whole, the unity, the total, that they constitute through those connections. In this way, the lover would fail to love something as a legitimate whole being. Also, since the lover is focused on pre-defined instrumental traits, the beloved as a whole other is, in principle, replaceable, even, dispensable.[131] This is what an extreme *eros* proposes. In this sense, it seems to me that both traditions, in systemic terms, are incomplete and incoherent, and ultimately incapable of explaining what 'to love the other for its own sake' means and involves.

The philosophies of Singer and Badhwar have recognized the dichotomy of the *eros-agape* traditions and have proposed a more integrated perspective of love. Singer proposes a communion, a synthesis of what he calls bestowal love and appraisal love.[132] As discussed earlier, Singer emphasises that the lover bestows value on the other (a disposition that is derivative from the *agapic* tradition). The lover 'gives [to the other] an importance beyond its individual or objective value'. In the love of persons, for instance, he suggests that 'people bestow value upon one another over and beyond their…objective value'…'Loving another as a

---

and ideals. He argues that, although we label some love as the love of an ideal (e.g Plato's love of the good), they are usually interconnected, thereby constituting a more holistic experience of love.

[131] See Badhwar, "Friends as Ends in Themselves."; Helm, *Love, Friendship, and the Self: Intimacy, Identification, and the Social Nature of Persons*.

[132] Singer, *The Nature of Love: Plato to Luther*; Irving Singer, *The Nature of Love, Volume 3: The Modern World* (MIT Press, 2009).

person means bestowing value upon his personality even if it is not virtuous'.[133] However, he recognizes that pure bestowal is not enough and there must be room for human appraisals of the other's character (namely, a disposition that is derived from the *eros* tradition). Singer sees human appraisal as a necessary condition to bestow value on the beloved. 'Appraisal', he says, 'is both causal and constituent' of love. He concludes that 'Love requires and includes appraisal as well as bestowal'… 'Unless we appraised we could not bestow a value that goes beyond appraisal; and without bestowal there would be no love'.[134] In love of persons, for instance, a bestowal-appraisal communion would have the following structure for Singer: 'to love a women as a person is to desire her for the sake of values the appraisal might discover, and yet to place one's desire within a context that affirms her importance regardless of these values.'[135]

In a similar fashion, Badhwar also recognizes that, although people may experience love as *responding* to value, lovers also give value to the beloved. She claims that 'love as an emotion is both a delighted, affirming, response to an individual's inherent and relational value, and a realistic and benign projection of value, whereby formerly aversive or indifferent features becomes lovable simply because they belong to the beloved'.[136] Based on Aristotelian friendship, Badhwar also argues that the love of the other as an end in itself must attend to the essential qualities that define the other as a unique and irreplaceable being. That is, the qualities of a person are formed in and expressed by their particular, historical existence and therefore are inseparable from their identity.[137] So, Badhwar states and concludes that 'the best, most complete friendships are those in which friends love and wish each other well as ends in themselves, and not solely, or even primarily, as means to further ends'.[138] This love…'is necessarily based on qualities which do define the person, and define her as an end in herself'.[139]

It seems to me that both Singer and Badhwar go a step forward in overcoming the *eros-agape* dichotomy. Both seem to overcome both the instrumentalism of the tradition of *eros,* yet without

[133] Singer, *The Nature of Love: Plato to Luther*, 94.
[134] Ibid., 9.
[135] Ibid., 6.
[136] Badhwar, "Love," 56.
[137] Badhwar, "Friends as Ends in Themselves," 178.
[138] Ibid., 166.
[139] Ibid., 182.

negating the importance of considering the constituent qualities of the other, and the universalism and depersonalization of the tradition of *agape*, yet without negating the importance of valuing the other for its own sake. However, although they contribute greatly to a more holistic view of love, I think that both of them fall short in an ecological explanation of loving the other for its own sake both in systemic and less anthropocentric terms. Singer's statement is illuminating. However, it seems to me that it fails to provide a forceful argument – for instance, to apply a systemic perspective to his bestowal-appraisal communion, and therefore there are implicit contradictions, or unclear arguments that are, or may be understood as, still part of the *eros-appraisal* dichotomy. For example, Soble criticises Singer's bestowal-appraisal communion. He argues that 'to claim that appraisal is necessary for bestowal, and therefore for love, seems to contradict Singer's assertion that the lover bestows value "without calculation [and] no matter *what* the object is worth"'. In this sense, he questions the fact that appraisal would be necessary when, by including bestowal, love can emerge without any consideration of the beloved's 'merits'. Soble comments that this 'hardly looks like a reconciliation of eros and agape'.[140] Badhwar goes one step further by applying a more systemic view of the beloved—mainly, that a person is ineluctably attached to or constituted by his qualities which are developed through his own historical existence. However, her systemic argument is still too implicit and restricted to a philosophical explanation of a person's identity and to friendship relations only. In Badhwarian analysis, it is not clear if loving the other as an end in itself might or might not occur, and how it would occur, in a domain different than human friendship, such as non-reciprocal love, or love of non-human beings, or love of major wholes such as an ecosystem and Nature. In this sense, an even more explicit and non-anthropocentric perspective is still needed to explain the idea of loving the other for its own sake in ecological terms.

Recalling some systemic principles reviewed in Chapter 1, the form and the structure of living beings are inseparable. As observers, we can define the form of, for instance, the class identity of dogs. The form of dogs would be conceptually universal and every living being that would fit into that form would be a dog. However, the form of dogs, in contrast to a Platonic meta-physical

[140] Alan Soble, *The Structure of Love* (Yale University Press, 1990), 24.

and transcendental one (e.g. the good), is ineluctably embedded in every dog that has existed and exists in the biosphere. If the dogs that inhabit the biosphere disappear, the form 'dog' disappears with them. Each dog is constituted by a particular structure, or embodied dynamic components. That is, different connected components continuously embody the form of a dog constituting it as a particular living being in a particular ecological domain. In bio-ecological terms therefore, the form does not exist in abstract or disembodied terms and the structure is limited by the form that it constitutes. It is important to also recall that this systemic principle is not necessarily limited to living beings, but it seems to be valid for any component of an ecosphere that each of us inhabits. So, when we perceive a unity (or a whole) we can also perceive it as a system—namely, as a composite unity. As Maturana explains, a unity exists as a composite one when we perceive the components that constitute that unity. So, a unity would not exist as a particular unity without those particular interconnected components. In this sense, a composite unity exists simultaneously as a whole and as a system.[141]

I concede that, from a bio-cognitive point of view of the ecology of life, this systemic principle appears as a plausible way to explain the love of particular and irreplaceable individuals for their own sake. However, it is important to clarify that the experience of love does not necessarily occur in the *explicit* awareness of this systemic principle. Nor, I am suggesting that we should love every being or thing *because* it is perceived as a composite unity. This would be a misplaced universalism, as happens in the Platonic good. I am just saying that, this systemic perspective is a plausible ecological *explanation* of a phenomenon that is experienced in the uniqueness of a loving relationship. Thus, from a systemic perspective, I think that to love something for its own sake *implicitly* involves loving it as an authentic and irreplaceable composite unity—namely as a whole, a totality in itself, but dynamically constituted by its unique, embodied, and interactive components.

[141] Humberto Maturana and Francisco J. Varela, *Autopoiesis and Cognition: The Realization of the Living* (Reidel, 1980); Humberto Maturana, "Ontology of Observing: The Biological Foundations of Self-consciousness and the Physical Domain of Existence," *Unpublished Document, University of Chile, Santiago* (1986).

For example, if a person loves the beach that is close to his village, it means that he loves it as the beach that it is. However, this beach is not just an abstract universal concept, but a whole that is constituted by particular components that the lover perceives in his intimate relation with it. His relationship with that beach is with all its components or traits that he perceives and values both implicitly and explicitly, such as its blond sand, the unique intensity and dark blue of its waves, its 3.5 kilometres of length, its geographical position, its incredible condition to nest thousands of living beings, the particular rhythm of its tides, etc. His perception, value and knowledge of its components and the connection between them, articulated through intimate relationship, allow him not only to understand the uniqueness of this beach, but most importantly, to value it as the particular whole that it is. Further, it allows him to respect it for what it is, and this includes *all* its components and processes, those which he may like and those which he may dislike. Moreover, it allows him to know what might be good for its conservation and therefore to act 'for its own sake'. The last two ideas connect with what we have seen in the *agape* tradition about self-given love. The love of a beach, as a particular ecological example of loving Nature, implies valuing and acting for its own sake, regardless of whether or not it is directly beneficial to the lover.

The same occurs in the love of a person. If loving a person for her own sake means to love her for the person she is, the lover is aware that his beloved is not just a human being but a *particular* human being. This particular human being, needless to say, is unique. Therefore, when the lover is involved in an intimate loving relationship with someone, such as a friend, he does not just love her because she is a human being but because she is *that* particular human being. And that friend, this unique individual, can only be perceived and valued for her own sake through the recognition of her particular self-in-process—the particular, ongoing, psycho-physical components that constitute, moment after moment, that particular human being. Through the dynamic path of living of the beloved, her unique humanity as a psycho-physical being is continually shaped, and her personality, desires, needs, dreams, frustrations, phobias, traumas, physical shape, health, etc, are in continuous change or conservation. Thus, the perception and value of a person as a self-in-process which is continuously 'shaped' by different structural components is essential in loving someone as an end. Furthermore, the knowledge of the

composite elements of the beloved's self-in-process are therefore essential, if we agree in the first place, that to love someone implies, among other things, to be concerned about the conservation of her life and well-being. The lover therefore, through a loving disposition, gives value to the beloved's composite, dynamic existence by attending to the beloved's 'qualities', this being vital to love her for her own sake.

All this seems to be a more explicit explanation about loving the other for its own sake, and is still conceptually coherent with Singer's and Badhwar's philosophies previously reviewed. However a systemic view of life on earth may give us something more that Western philosophy of love in general and Singer and Badhwar in particular seem to ignore or underestimate when explaining the love of a particular other for its own sake. They focus their attention on the individual only. They tend to treat the beloved as a being in itself, independently from the world in which it exist. That is, they do not consider the medium in which a beloved exists—its ecology. Doing this, I suggest, is not only phenomenological and bio-cognitively misplaced, but also negates the possibility of loving the other for its own sake.

When we see a composite unity as a whole, we always distinguish it in the medium in which it exists.[142] We have also seen in Chapters 1 and 2 that every living being exists within a medium. Every living being is a 'being-in-the-world'. Thus, to love something for its own sake also means to love it as a being that ineluctably exists in a medium which is essential for the conservation of its existence (and, if a living being, for its well-being). If a person loves a particular pack of foxes that live on the hill near his home, he will certainly respect the medium in which they live and he will be really concerned if he sees that there are some people destroying the ecosystem that the foxes inhabit. It would be nonsensical (and certainly not love at all) to say that he loves those foxes while also throwing rubbish everywhere when he climbs the hill on weekends, or indiscriminately chopping trees for fire wood, or polluting the water of the river from which they drink, or allowing unnecessary urban development near their home, or polluting the air that they breath, or over hunting the rabbits from which they feed themselves. It is in this realization, in the

[142] Humberto Maturana and Francisco J. Varela, "Autopoiesis: The Organization of the Living," in *Autopoiesis and Cognition: The Realization of the Living* (Reidel, 1980); Maturana, "Ontology of Observing: The Biological Foundations of Self-consciousness and the Physical Domain of Existence."

awareness that a beloved is not a being of nowhere, an isolated object with clear closed limits, but in contrast, is an interactive being, with a permeable membrane, that depends on the conservation of factors beyond its individuality, when (a) the explanation of loving the other for its own sake becomes complete, and (b) when the explanation of love becomes ecological.

An immediate conclusion therefore would be that to love the other for its own sake also means to love the medium in which it exists. In many ways, I think that this is certainly plausible, but it needs further clarification and I will deal with this later.

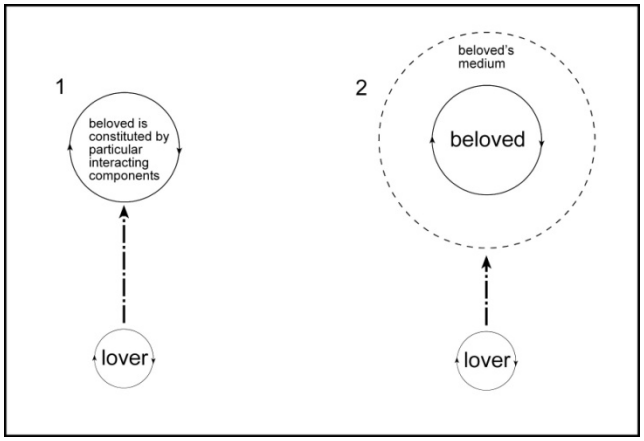

Figure 4.1: Loving the other for its own sake explained from a systemic perspective. To love something/someone for its own sake, from a systemic perspective, implicitly implies seeing it as a legitimate composite unity. This means: 1 to distinguish (or perceive) and treat the beloved as a unity that is constituted by unique components that interact between each other. Perceiving, attending, respecting and knowing those interacting components is essential to love something/someone as a unique, irreplaceable other. 2, To distinguish (or perceive) and treat the beloved as unity that exist in an ecological medium that is fundamental for its existence and well being. This means, that to love something/someone also implies to love (respect) the medium in which it exist. (1) and (2) are not separate phenomena, but rather parts of a whole dynamics—loving the other for its own sake.

Steps to Co-designing in Love

I have suggested that ecological design can only emerge when the designer is in a loving disposition. I have also proposed that this disposition implies that the primal action in loving conversations in general and ecological design in particular is that of listening to oneself and to the other—attentively opening oneself to the other, so that the other is perceived and treated as an *authentic* being. Now I can also add that in the act of designing, the ecological designer is in a

conversation that happens, in its most basic form, with a particular and irreplaceable other (or others) and is concerned with the other for its own sake. This implies perceiving, valuing and knowing both its constitutive qualities and respecting and conserving the medium in which it exists.

Unfortunately, Western design has arrogantly and aggressively become more and more a depersonalised design. It is a design focused on predefined intentions that simply do not consider the other as an authentic other. It even underestimates the other, or more dramatically, consciously despises the fact that the other might or should be considered as an authentic other. In this emotional intention, the Western designer has not only become ecologically displaced, but most dramatically, in his deafness and blindness towards the other – in his ignorance of the most important thing in an ecological action – has conducted conversations that create too much noise and saturation, destruction and depletion, and with them, unjustified pain, anger and frustration, illness and poverty.

In contrast, designing *with* a particular other, and *for* the other's own sake is a personalised conversation. It is a disposition and action directed to, and focused on, a particular other through intimate relationships. As I said before, this conversation is based on a loving disposition that implies deep listening and observing. Now I can say that this attentive opening towards the other will inform design about the particularity of the other, its constitutive structure, its particular conditions, and everything that is needed to contribute to its conservation and well-being. In this way, the designer is occupied with the other as a whole being, as an end in itself, for its own sake, regardless of whether the designer perceives in the other a specific 'quality' that the designer may dislike. Briefly, the designer gets to know the other, and acts in accordance with that knowledge.

But also, designing with the other for its own sake is about being aware that the existence of the other is ineluctably interwoven with the medium in which it exists. That is, the designer's loving attention also brings to the conversation (or design process) environmental factors that are fundamental for the well-being of the beloved. Furthermore, designing with the other for the other's own sake always involves a major medium and, by extension, it inexorably influences the

existence and 'well-being' of other 'others'. It is in this moment, in the realization that design is always a conversation with a particular other and that this other co-exists with other 'others' who *should also* be seen in their own legitimacy, that design becomes ecological, and therefore, also environmentally ethical.

Designing with the other for the other's sake will always involve environmental change (i.e. construction and/or destruction). This is an ecological fact. In this sense, Van der Ryn and Cowan claim that a key principle of ecological design is that 'no ecological design is executed' without 'ecological accounting'. With this, they mean that 'careful ecological accounting provides an accurate measure of the environmental impacts of designs, allowing these impacts to inform the design process'.[143] I think that the essence of an 'ecological accounting', and therefore the basis of its practical success through design, is that of being concerned about particular others for their own sake. This is because, based on the argument about loving the other for its own sake, the emotion of love is the only human disposition that can (a) truly open the view of the designer to 'appraise' both the constitutive 'qualities' of the other, and the 'qualities' and conditions of the medium in which the other exists; and (b) accurately guide the designer's actions by being focused on the other for its own sake (or as a total legitimate other), *but* without jeopardizing the medium in which it exists. The emotion of love is the only disposition that can allow the designer to open himself towards the other and its medium and therefore the only one that allows the emergence and employment of a truly environmental ethics in the act of design with a particular other in a particular ecosystem.

Based on all this, let me comment on a point related to environmental ethics. In the last section, I suggested that Aristotle's *philia* in general and the love of the other 'for its own sake' in particular, may be considered as the Western epistemological root of the field of 'human ecology'. Now, it might also be said that loving the other 'for its own sake' might be the starting point for a more coherent environmental ethics. However, in order to do this, the concept of 'the other' must overcome its anthropocentric connotation and be expanded to other non-human beings, and why not other non-living eco-systemic components. In this sense, it is imperative to

[143] Sim Van der Ryn and Stuart Cowan, *Ecological Design*, 1st ed. (Island Press, 1996), 83.

separate the Aristotelian notion of 'loving the other for its own sake' from (1) the also Aristotelian overstressed anthropocentrism of the notion of 'the other', and (2) from Aristotle's point of view about the existence of other living beings and non-living components of Nature as instruments of humans.

Most of the Western attitude towards the natural world may have its roots in Aristotle's perspective about animals, mainly one of serving man. Hughes explains this as follows:

> [Aristotle's] reasoning [towards animals] was teleological. All things fulfils its end, it is useful and beautiful. Therefore, no animal lacks beauty, because all animals are formed for their proper ends. And what is their proper end? Aristotle says it is the service of mankind. All animal, and indeed all other things, exist for human good. Therefore they are fit instruments for human beings to use, as in domestication. Of course, Aristotle himself would not have justified the misuse of animals or their senseless slaughter, but once he became established as an authority, his teaching that the other creatures are a lower order, subservient to human needs, bore with it the obvious corollary that they have no justifying purpose of their own, and therefore no independent right to exist.[144]

Aristotle's words reaffirm Hughes' explanation: 'Love for a soulless thing is not called friendship, since there is no mutual loving, and you do not wish good to it' (*Nicomachean Ethics* 1155b30).[145] In other words, Aristotle believes that to love something for *its own sake* is limited to human beings and therefore any other loving relationship is intrinsically instrumental, i.e., you wish 'its preservation so you can have it'. In Chapter 3, I examined how Wilson extends the concept of *philia* to the whole ecological environment in which a human being exists. He proposes that 'biophilia' is not only possible but also a necessity of human existence. In many ways, the notion of biophilia overcomes Aristotle's aristocratic and reductive explanation in which friendship (*philia*) occurs only between good people who deserve the good between each other. Biophilia is probably one of the most important and necessary hypotheses of love presented in the last decade. However, my main concern with both Wilson and Kellert is that they do not totally overcome Aristotle's 'homocentric' view mainly because they explain and validate biophilia in instrumental terms. They do not overcome the instrumentality implicit in Aristotle's explanation of love of non-human living beings and things. Their Darwinian perspective of

[144] Hughes, *Ecology in Ancient Civilizations*, 64.
[145] Aristotle, quoted in Soble, "Union, Autonomy, and Concern," 82.

evolution makes them to present biophilia mostly as a survival *tool*. Their explanation seems to be aligned with Aristotle's understanding of the love of wine (and anything but humans) which is, at its best, a disposition towards the other in terms of its usability. Although it is correct to understand *philia* (and biophilia) as necessary to human survival and well-being, the emergence and cultivation of love, in this case the love of Nature, is not primarily because it is *useful* to the lover. In contrast, I have argued that the emergence of biophilia is mostly based, in evolutionary terms, on intimate and trustful relationships, and that this necessarily implies a human disposition that sees the other in its legitimacy and not because it is useful for oneself. In other words, I propose that biophilia, as an ecological extension of *philia,* must be primarily based on Aristotle's 'to *love others for their own sake'*, as an end in themselves, and not (also in Aristotle's terms) because it is *useful or pleasurable* to the lover. As Aristotle rightly suggests, *philia* (particularly in what he called 'perfect friendship') is *also* useful and pleasurable to the lover's; however, neither are the prime basis of complete friendship. Thus, only when 'the love of the other for its own sake' is extended to other non-human beings and 'lifelike processes', does human design and ethical concern become ecological.

4.3.3. How does the phenomenon of self-love constitute an essential aspect of the ecology of loving?

Until now, the focus has been on explaining the attitude of the lover (and that of an ecological designer) towards 'the other'. But, what happens to the lover in the dynamics of loving? How does self-love become part and parcel of a loving conversation?

While the explanation of loving the other for its own sake (i.e. systemically, as a composite unit) can be generally understood and approved, the love of oneself for one's own sake (or self-love) is much less acceptable due to a historically widespread Western belief that self-love is essentially negative, sinful and evil. As we have seen, most of Christian *agape*, as presented for example by the Lutherans Nygren and Kierkegaard, has condemned self-love, arguing that it is a basic animal behaviour that is the opposite of the pure love of God and neighbour love. In a non-theological domain, self-love has also been a 'knotty' term. For instance, Freud seems to see self-love as a complicated concept, since although it is essential for the human *erosic* desire – the internal

driver – it is also essentially associated with his clinical or psychiatric concept of narcissism—the attraction of the lover towards himself.[146] In a philosophical domain, Kant suggested that self-love is conceptually opposite to (or at least potentially in conflict with) what it means to be a moral being.[147] In this context, it is generally assumed that self-love is the same as selfishness, since the lover seems to be concentrating on *his* well-being rather than on the neighbour's. It is believed that the more a person loves himself, the less he adequately loves other beings. I think that this is a serious error and only helps to complicate the understanding of love in embodied-ecological terms. As I said earlier, proposing self-love as synonymous with selfishness is ultimately about negating the lover as an individual human being. Selfishness is an arrogant and pejorative disposition that is something different from self-love. In fact, I think, it is the opposite. Selfishness is a disposition that intends to control the path of living for the benefit of desires that ultimately negate the possibility of valuing the legitimate existence of others and of oneself. As I will argue, I think that self-love is the only way that the lover can coherently both accept himself as an authentic being and situate himself in an ecological medium, and love it. My approach in this sense can be regarded as essentially Aristotelian. Recall Aristotle's belief that self-love – friendship with oneself – is essential for the establishment of *philic* relationships—'as the virtuous man is to himself, he is to his friend also (for his friend is another self)'.

More recently, both Fromm and Singer have emphatically criticised the cultural belief that self-love and love of others are incongruous. Fromm argues that the 'logical' fallacy implicit in the association of self-love with selfishness is that, 'if it is a virtue to love my neighbour as a human being, it must be a virtue –and not a vice- to love myself, since I am a human being too. There is no concept of man in which I myself am not included.' So, he claims that '[a doctrine which] proclaims such an exclusion proves itself to be intrinsically contradictory'.[148] Even more categorical, he says that 'the affirmation of one's own life, happiness growth, freedom, is rooted

[146] Fromm, *The Art of Loving*, 45.
[147] Frankfurt, *The Reasons of Love*, 72.
[148] Fromm, *The Art of Loving*, 46.

in one's capacity to love'.[149] In this sense, Fromm suggests that self-love and love of others are actually 'conjunctive' and not 'alternatives'.[150]

Fromm's words seem really plausible in terms of affirming that self-love is intrinsically connected with the love of others. However, I agree with Singer when he says that Fromm's argument misunderstands the relationship (Fromm's 'conjunction') between self-love and love of others because it sees self-love purely as 'a *consequence* of loving human beings in general'. As Singer explains, there is a priority of neighbour love over self-love 'not merely in the sense that we cannot love ourselves unless we are able to love others but also because self-love is just an application to oneself of the love one also has for others'[151] I think Singer is correct when he says that both self-love is not just a consequence of loving other human beings, but rather they are equally significant.

> I am suggesting therefore, that just as we cannot love ourselves unless we are capable of loving others, neither can we love others unless we love the separate and distinct persons that we are in ourselves. We thereby bestow value upon our separateness while also appreciating the importance of accepting the separateness in others. These conditions are correlative to one another. Neither is more ultimate, neither reduces to the other.[152]

Assuming that self-love is not the same as selfishness and that, following Aristotle and Singer, self-love and the love of others are essentially interdependent or 'correlative to one another', it becomes necessary to deal with the question about *how* self-love can be explained from a systemic and ecological perspective and therefore *how* it is connected with the love of others.

My starting point is the presupposition that the disposition of loving something for its own sake, as already explained, is no different from the love of oneself. It is the same loving disposition. Briefly, self-love can be understood as the *love of oneself for one's own sake*. If loving the other for its own sake can be explained as implicitly seeing it as a composite unity, it should follow that loving oneself for one's own sake can also be explained in this way.

---

[149] Ibid., 47.
[150] Ibid., 46.
[151] Singer, *The Pursuit of Love*, 77.
[152] Ibid., 80.

From a systemic perspective, a self-loving disposition implies seeing oneself as the autonomous person that one is. In this sense, self-love implies being aware that one is a particular, unique, and irreplaceable human being. Self-love is based on this intimate relationship with one's uniqueness and not because one is just a member of a transcendental form called 'human being'.

I have said that the first act in a loving disposition is about listening to oneself and to the other. By listening to one-self, I mean, being attentive to one's self-in-process (to one's always changing structure, or to accept one's homeostasis constituted by one's always changing and moving existence). Self-love is about perceiving and accepting *all* one's attributes – such as, needs, desires, concerns, traumas, physical postures, pains, etc – which, in dynamic connection with each other, dynamically constitute a complex and unique whole or being—oneself. The acceptance of one's self-in-process as a dynamic composite phenomenon implies that nothing that happens to oneself is irrelevant, whether one likes it or not. When one loves oneself, everything that happens in the intimacy of one's life is important—one is aware that every component of one's life influences the whole. Self-love therefore, also implies valuing and attending to any state-attribute perceived as 'negative'.

Accordingly, by attending to one's needs, desires, concerns, etc, one gets to know oneself, to identify what is good in oneself, what might make one happy, and what might make one sad, etc. This is why it is so important to attend to the character, the attributes, and the components that define us moment after moment. It is the only way to love oneself, and therefore, conserve one's existence and well-being.

Nevertheless, perceiving, valuing and accepting oneself as an autonomous individual does not mean blind abnegation or passive receptivity of one's desires, needs and concerns. In contrast, and most importantly, Self-love, as an emotional-intentional disposition, *defines* a particular path or manner of living that is important to oneself. Self-love is a Cognitive disposition, an intrinsic part of one's self-in-process, and therefore, when present, influences everything that happens in our internal dynamics, from the beating of the heart and body tension to psychological states, from cellular reproduction to the form one smells, sees, listens and touches a world, from the

function of the immune systems operation to the way one walks through the land, from the development of our sexuality to the way we philosophise and talk. In other words, self-love plays a fundamentally active role in the *ongoing cultivation* of one's life in the pleasure of, accepting, respecting, attending, knowing, and creating and defining one's life. Self-love is therefore a vital part and parcel of a dynamic conservation of one's self-in-process.

In attending to oneself – to one's intimate relationship with oneself, through a loving disposition, self-knowledge, self-confidence, self-trust, self-affirmation, self-respect, and self-esteem, etc, can emerge and be cultivated. But none of them, and the self-love that is the basis of them all, are possible if we do not understand that everyone's life is not isolated and closed, but a permeable process that occurs in a socio-ecological medium.

Since the medium in which one exists is a fundamental condition for one's own conservation of existence, that is, that one's life and well-being is ineluctably attached to one's capacity to coherently interact with one's medium, self-love implies and embraces a fundamental concern with the *conservation* of the medium in which one exists. If self-love does not include the medium in which one lives, it means that one would not be interested in conserving one's medium, and would thereby not be interested in conserving oneself—that is, there would be no self-love. In other words, since love is the only emotion that is concerned with the conservation of something for its own sake, *it is axiomatic that self-love, or loving oneself for ones own sake, also implies loving the medium in which one exists. And to love the medium in which one exists implies conserving it for its own sake*. Loving the medium for its own sake is the only way to conserve its bio-physical dynamics and, by extension or as a result of this, to conserve a medium that 'nestles' oneself. Again, a self-loving disposition is a manner of 'looking' that is attentive and respectful. It accepts the medium that naturally emerges in one's path of living moment after moment. Self-love implies an interest in and identity with that emergent medium. Self-love implies living in an intimate relationship with the medium that emerges in one's path of living, thereby getting to know the medium and what one likes and dislikes about it, what is meaningful and what is not, what makes one happy what makes one sad, etc.

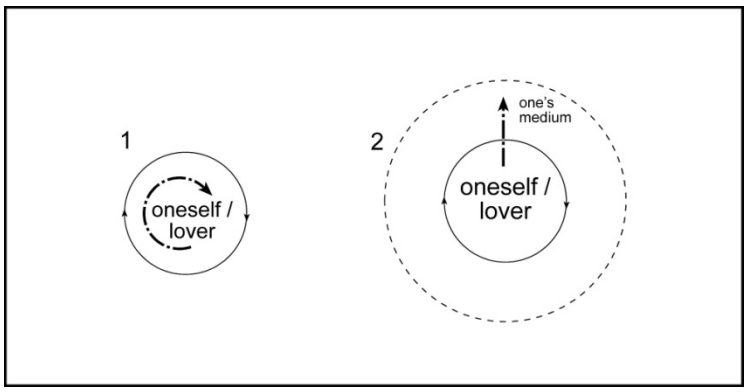

Figure 4.2: Loving oneself for one's own sake. Self-love is a Cognitive disposition that (1) through attentive perception both accepts one's ongoing, composite psycho-physical structure (ongoing 'qualities', 'traits', etc) and also defines what is important to oneself—it is part and parcel of one's Cognitive self-in-process. And (2) Accepts one's ongoing medium as a condition of one's existence and well being, thereby trying to conserve it by creatively participating in that medium through a loving disposition. That is, loving oneself implies loving one's medium for its own sake. (1) and (2) are not separates phenomena, but rather part of a whole dynamics: loving oneself for ones own sake.

However, the fact that loving ones medium means that it is important to oneself does not imply total abnegation to it. In contrast, loving one's medium is an emotional-intentional disposition that also defines a way of creating that medium. Loving one's medium involves being aware that one is a fundamental participant and creator of the medium in which one lives. By loving ones medium, one becomes consciously and actively responsible for its construction and conservation. Thus, this creative aspect that makes us responsible for the world that we inhabit, also implies that we have to defend what we consider is important for the conservation of an environment that would allow us to conserve its bio-physical dynamics and one's well-being. The love of one's medium therefore also implies a critical mode of 'looking'.

Loving one's medium as a fundamental aspect of self-love is exactly when self-love and the love of the other are connected in a whole and indivisible dynamics: The love of oneself implies loving one's medium for its own sake as an end in itself. Loving it as a particular whole, however, implies perceiving its constitutive components, the others, particular others, and

thereby, loving them for their own sake.[153] In other words, loving one's medium as part of self-love is ultimately the love of the other and of particular others, whatever they might be. Putting this another way, the love of the other/s is the love of one's medium, and ultimately, the love of oneself.[154]

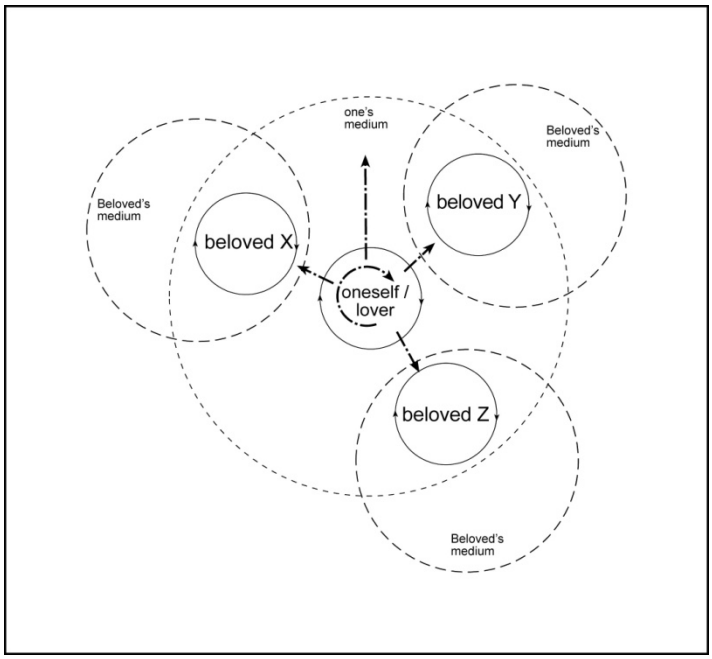

Figure 4.3: The dynamics of the Ecology of loving from a systemic perspective: Self-love and love of others interdependency

[153] And loving them for their own sake, we have seen, involves loving not only their individual's qualities, but also, their own mediums that, ecologically, although interwoven with one's medium, are different medium.

[154] As far as I understand Frankfurt's account of love, it seems that he arrives at a similar conclusion. He says that 'It is what a person loves that determines what is important to him. Thus, it is axiomatic that a person's self-love is simply, at its core, a disinterested concern for whatever it is that the person love [or in an even "more rudimentary form" … "the desire of a person to love"]'. Then he adds that 'self-love seems to collapse into nothing more than a love of things one loves. People cannot avoid loving themselves; it appears, as long as they love anything at all. If a person loves anything, he necessarily loves himself'. (2004, 85, 86) In this sense, Frankfurt is uniting the love of oneself with the love of the other, or in fact, whatever one might love. Therefore he plausibly claims that self-love is ultimately a 'redundancy'; it is just the love of what one loves. However, the difficulty that I see here is that it seems that Frankfurt is ultimately reducing self-love to the love of anything that is different to the self. This would be consistent with my point of view that self-love is the love of one's medium that is ultimately constituted by things (or others) different to oneself. But, it is inconsistent with my view that self-love is also focused on one's individuality, on ones (let say) 'inner' self-in-process. That is, that the focus of love can also be oneself as an individual. Ultimately, it seems that Frankfurt's account, like the tradition of agape and Fromm's understanding of self-love, is reduced to the love of the other (or as Frankfurt would clarified, at least the 'desire of loving' the other or anything different than oneself). My main concern with this perspective, I said, is that the lover, by uniquely loving to the other, ultimately negates his own individuality.

There are two implications of this explanation of an ecology of loving that must be attended to and clarified in order to avoid Cognitive and ecological incoherencies. For now, I will just mention them:

First, the ecology of loving formed by the interdependency of self-love and the love of other form a dynamics that is 'holarchic'. Loving one's own individuality, one's eco-systemic medium, the other, and the medium in which the other exists are all interconnected and interdependent.

Second, In the process of loving, the lover is in a continuous 'expansive' and 'inclusive' development of a natural consciousness in which loving the other means loving its medium, and loving its medium means loving other 'others' who exists in their own mediums, and so on.

However, these two implications of the ecology of loving need further clarification which I will attend to later. Now, might be a good time to say that it is the humanity of the lover, that is, its Cognitive capacity and its ecological particular existence that sets limits to, and defines the structure and intensity of the 'holarchy' and systemic expansion of *his* love which otherwise would appear as unlimited phenomena in conceptual and logical terms.

Steps to Co-designing in love

The interdependency between self-love and love of other/s is the essence of loving conversations. That is, the dynamics of loving oneself and the other is in fact, or takes place through, the process of having a loving conversation with the other in which the lover also loves himself.

In the inexorable interweaving of the lover (or oneself) with the beloved through loving conversation, it is apparent that ecological design is not about the design of the realities or lives of other beings as they were peripheral or dissociated and dislocated from the designer's life. As a conversation, ecological design is fundamentally co-creation, co-facilitation—co-operation; it is *co*-designing in love. This means that, in the conversation with the other, the designer inevitably creates his own life and his own medium too.

Unfortunately, global Western design, happening in an emotion different from loving, is based on the belief that the designer defines and creates (or why not imposes) 'solutions' in another

medium, a place that is distant, almost foreign to him. He designs for people, for the mass, but not *with* the others, nor for himself. It is an epistemology of design which is part of a Cartesian subject-object separation, in which the other is not seen as an authentic other (as another subject) but as an object. This is the design that, in other words, promulgates the separation between designer and consumer. It is hierarchical; there are few designers, few (let's say) 'designators', and many passive users, that is, many 'designated'. It is ultimately the practice of the tragic parody of master and slave. Briefly, this is a design intrinsically anti-ecological, and often, overbearing.

Co-designing in love, in contrast, is an inclusive and intimate conversation. It is a dynamic that incorporates the other, that invites the other to give its point of view, to create the world in which it 'wants' to live. That is, it is a process in which every participant is a designer. A primal ethical disposition in an ecological designer is the awareness that everyone, every participant of a loving conversation, is a 'designer'. Also, in this co-creation, the designer not only designs with others but also for himself. He knows that his medium is intimately related to the other's medium. He knows that his well-being is ineluctably interdependent with the other's well-being. In the process of co-designing in love, there is no separation between designer and consumer and the practical distinction between them is deeply diminished. Orr suggests that 'the quality of design…is measured by the elegance with which we join means and worthy ends'.[155] I think that co-designing in love is the fundamental nature of this elegancy. As I will explore in the next chapter, what continuously emerges from an intimate and 'elegant' process of co-designing in love is a sense of being at *home* in the world in the company of other human and non-human beings.

Let me now briefly comment on a point related to environmental ethics. In Chapter 3, we saw that love essentially emerges through recurrent, intimate conversations. I proposed that, as a biologically loving species, humanness emerged through intimate socio-ecological conversations with human and non-human beings. In the current chapter, I have also suggested that a true

[155] David W Orr, *The Nature of Design: Ecology, Culture, and Human Intention* (Oxford University Press, 2002), 28.

environmental ethic can only emerge when the idea of 'loving *the other* for its own sake' to non-human beings as well. These two ideas are central components of, and are practiced through, the process of co-designing in love. It can be argued that it is ridiculous to say that non-human beings and other eco-systemic objects and processes are designers. In fact, it is ridiculous! As a conversation (i.e. a Cognitive interweaving between emotioning and languaging), design is certainly a human activity. I do not intend to create an anthropomorphic vision of non-human beings. However, although other living beings do not converse, we *do* converse with them. Conversing is *the* human way of relating to everything. Thus, co-designing in love involves not only perceiving, respecting and considering other non-human beings for their own sake, but also seeing them as active *creators* of the worlds we inhabit. Co-designing in love implies being aware that the world that humans create and cultivate is also inhabited by other living beings that, although not designers in conversation, are also *creators and active participants* of this world, and they do it *in their own way*. Briefly therefore, co-designing in love is about having socio-ecological conversations with humans and non-human beings, and other eco-systemic components and processes.

Finally, I have said that accepting the other as an authentic being does not mean total abnegation to it. We have seen that loving the other sometimes implies self-giving and even self-sacrificial actions. This happens when someone loves the other for its own sake. However, taking an Aristotelian line, I have also suggested that self-sacrifice does not happen instead of loving relationships that are useful and pleasurable for the lover. All of them are part of the ecology of love. For example, in the interconnection between self-love and the love of others, *biophilic* relationships emerge. Lovers share their lives, and mutually enjoy the company of the other. But also the lover will inevitably find himself neither in a self-giving attitude nor in a mutual *philic* relationship. In the acceptance of the other as an authentic other, a true awareness of life's diversity emerges, and diversity, as it occurs in the ecology of life, is also ineluctably related to relational conflicts. Understanding love as a totally and uniquely abnegating (or sacrificial) and mutual loving relationships is an ecological mistake which would ultimately lead to the rapid disintegration of the lover. The most dramatic and clear moment of conflict is the biological fact

that, in order to live, it is necessary to kill. Less dramatic might be some social conflicts – for example, discrepancies about how to govern a community or a country. There are also ecological conflicts – for example, discrepancies about how to use and share the water of a river, or how to grow the vegetables for a community, or how to manage a natural reserve. Briefly therefore, the lover lives in a world full of conflicts. Loving does not entail the absence of conflicts. To suggest the opposite would be totally misplaced and naïve. In contrast, *loving is a particular human disposition to deal with them*. In the human domain, every conflict of any kind is ultimately ethical—namely, the issue of how-to-live-in-the-world. As Leopold suggests, 'all ethics so far revolved around a central premise: that the individual is a member of a community of interdependent parts'.[156] As I have proposed, the disposition of love is the fundamental nature of a truly ecological ethics. So I suggest that it is through this disposition, practically articulated through loving conversations that we can deal with any conflict, even killing in order to survive – e.g. killing a lettuce or an animal to feed oneself and one's family – without stopping the act of loving oneself and the other. In a loving conversation with the natural world, everyday, the lover will have to act for his survival. He will even have to kill to maintain his life; a life that he loves. This however, does not mean that the lover does not love Nature. The lover kills the other by being fully responsible for his actions, accepting all the consequences, and being totally grateful to his beloved who has just died for him. Thus, love becomes spiritual, aesthetical and sacred; magically-religious... Co-designing in love is exactly about this, although it does not always have to deal with the act of killing. Co-designing in love is about open dialogue through attentive listening and cooperatively and responsibly taking an ethical decision about how to create and conserve a world. Co-designing in love is a platform to deal with conflicts ethically. It is a platform about accepting and respecting diversity and looking for consensual cooperation. It is about co-existing.

[156] Aldo Leopold, *A Sand County Almanac: With Essays on Conservation from Round River* (Ballantine Books, 1990), 203.

4.3.4. What is the relational spectrum of the ecology of loving?

The disposition of love emerges and is cultivated through particular or unique relationships (or conversations) that a lover may have during the praxis of living. Every loving conversation occurs as a unique and unrepeatable phenomenon, as experienced and defined by the lovers.[157] This is the reason why, using Singer's words, I believe love is essentially diverse and 'pluralistic'[158]. So, it is not possible to predefine *what* the lover loves (or should love). We cannot specify *what* is lovable and what is not, in universal terms – as happens in a Platonic tradition through the universalization and idealization of the beloved or the good – because this would transcend the lover's emotioning dynamics (or his loving disposition) and his particular loving relationship with a particular beloved. To predefine what a lover loves (or should love) is anything but a loving action. I prefer to leave this great privilege to all the lovers who have existed, exist today and will exist. Nor can we predefine how a loving conversation takes place because it is defined in the very process of conversing.

Although we cannot predefine what love loves because it happens in particular and unique relationships, we can examine the notion of loving relationships in terms of different levels of shared intimacy between the lover and the beloved. The examination of different levels of intimacy is important because it allows us to understand love in a more holistic and inclusive way. In traditional philosophical terms, I am concerned with the implicit dichotomy between the understanding of love as an intimate (and most of the times, reciprocal) relationship, as understood by Aristotelian *philia*, and, on the other hand, a more open and generic love that tends to transcend particular relationships with particular beings, as happens in the *agapic* tradition. I think that both phenomena are part of an ecology of loving. Yet it is necessary to overcome their implicit mutual negation by understanding their systemic interdependence. I propose that these two traditions implicitly connote the two extremes of a rich spectrum of different 'levels' or intensities of intimacy. The tradition of *philia* (friendship) connotes relationships (or

[157] Similarly Maturana suggests that 'love may involve few or many relational dimensions of coexistence according to the relational space in which it takes place'. Humberto Maturana and Jorge Mpodozis, "The Origin of Species by Means of Natural Drift," *Revista Chilena de Historia Natural* 73, no. 2 (2000): 223.Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 223.
[158] Singer, *The Pursuit of Love*.

conversations) of great intimacy which I will call ‘consensual-cooperative relationships’, and the tradition of *agape* (neighbour love) connotes relationships of very low intimacy which I will call ‘respectful relationship’. I shall argue that, in the ecology of human life highly consensual-cooperative conversations cannot emerge without the basis of respect towards the general form (for instance, the major biosphere or the general neighbour), nor can respectful ways of living be developed without the experience of intimate consensual-cooperative relationships. In other words, respect and consensual-cooperation are two sides of the same coin—loving relationships. Their systemic interdependency is fundamental to the sustainable co-existence of human ecology.

Consensual-Cooperation

In this chapter and the last one, I have laid great stress on the importance of intimate-loving relationships. In summary, I have insisted that a loving disposition implies loving a particular other for its own sake, i.e. to implicitly perceive it as an authentic composite unit. Intimacy allows the lover to really bring forth the other, its unique individuality, and therefore loving it as such. I have also said that Aristotelian *philia* appears as the main traditional account that defends man’s necessity to have loving intimate relationships, particularly, reciprocal ones. As Aristotle says, a reciprocal loving relationship – friendship – essentially means ‘living together’, and it is through this sharing of life that the lovers come to really know each other and themselves. From a biological point of view, synthesising Maturana’s and Wilson’s views, I have said that loving intimate relationships (or conversations) were (and still are) essential for the emergence of humanness as a socio-ecological phenomenon. Also, the notion of biophilia implies an expansion of human loving intimate conversations, to include particular relationships with non-human beings and ‘lifelike’ processes. Biophilia is about living in intimate cooperation with particular other non-human and ‘lifelike’ processes.

‘Living together’ implies a high degree of sharing. When this happens through loving conversations, the ‘lovers’ establish and cultivate a dynamic based on cooperative consensus. Consensus means ‘general agreement’ and can be based on many emotional dispositions leading to many kinds of actions. When it occurs through a loving disposition, it is cooperative. In consensual-cooperative conversations the ‘lovers’ are concerned with themselves and the other

for their own sake. Consensual-cooperative conversation is the common dynamics of truly social intimate interactions. It is the process through which participants mutually enjoy their presence, in which one nestles and is nestled, protects and is protected – loves and is loved. Lovers are embarked on a conversation in which they continually and attentively listen to the other's needs, desires, and conditions, which are related and coordinated with one's own needs, desires and conditions. In a consensual-cooperative relationship, lovers come to know each other, to distinguish and value the particularity of the other, and to know what might be good or bad for the other. It is where potential conflicts are faced through attentive dialogue based on listening to the other and looking for communitarian solutions. This does not imply a total overlapping between the lovers. I have rejected loving accounts in which the individuals become absorbed, thereby constituting a whole 'we'. In contrast, as suggested by Singer, in loving intimate relationships, 'lovers' become 'interdependent' without losing their autonomy (e.g. their individual Cognitive dynamics). In a consensual-cooperative relationship, the autonomy of the lovers is conserved, and even more, it is strengthened. It is through intimate relationships that the lover generates meaning in his life, that he feels truly part of his medium, and that his participative presence is important for and valued by others. Thus, I believe that cooperative consensus can *only* emerge through a loving relationship because the disposition of love is the only Cognitive domain that is concerned about oneself and the other for their own sake.

Consensual-cooperative relationships are in themselves. However, they cannot flourish in isolation. Every lover and beloved is part and parcel of a major medium that is larger than a particular consensual-cooperative relationship.

In this sense, I have said that the ecology of loving is ineluctably *expansive*. By cultivating consensual-cooperative relationships, one's become aware of one's existence in a major medium that can be conserved when it is loved. However, let me now clarify what I mean by this, since it is a source of potential confusion and incoherence.

Cognitive and ecological distortions would arise if the expansion of love through loving the other for its own sake (particularly loving its medium and therefore the components of its medium and

so on) is taken literally and quantitatively. This would imply an endless expansion of intimate *reciprocal* loving relationships with particular beings (a sort of endless expansion of Aristotelian *philia*). If that happened, the expansion of love would finish in something very similar to Nietzsche's '*amor fati*', in which absolutely everything, every individual, is perceived and treated as a good and beautiful phenomenon and therefore it is loved as it is. But this is totally unrealistic. We cannot have intimate reciprocal loving relationships with all that we perceive in the world. I have criticised Aristotelian *philia* because, although it is only centred on the notion of friendship which is certainly reciprocal, it implicitly denies any possibility of loving others for their own sake if there is no reciprocity. Love, I have suggested, must transcend reciprocity, but without negating it. Loving is not only present in the mother-child relationship, romantic relationships, friendship relationships or any other reciprocal relationship. The disposition of love includes something more. Someone might argue that self-love and/or the love of others are not constrained by the love of the entire medium in which they exist. Actually, it might be said that most humans do not love the whole medium in which they live but this does not necessarily mean that they do not love themselves. For instance, a lover could say that he does not love war, terrorists and people that respond to terrorism by generating more violence. In spite of this, he would still feel that he does love himself and wishes to conserve his life and well-being. This is certainly true. However, it would be entirely correct only, if we firstly agreed that (1) love is limited to an individual as a totally closed being, independent from the conservation of its ecology-medium, and that (2) love is limited to intimate consensual-cooperative relationships, such as romantic love and parental love. I would disagree with both.

Loving oneself and the other for their own sake certainly implies the possibility of a quantitative expansion of consensual-cooperative relationships. Through loving a particular being, one might have the opportunity to meet other 'others' with the eventual emergence of an intimate loving relationship. But this has Cognitive and ecological limits. It is simply not possible to have intimate loving relationships with, let us say, six billion people! However, I think that loving one's medium is exactly the point where the 'power of love'[159] is truly unfolded. Self-love, as a

[159] Pitirim Sorokin uses this term as the title of his book about moral transformation.

creative Cognitive disposition, *is a manner of looking that is expansive*. Self-love is 'visionary'[160]. Its expansion is more about the realization of the complexity of one's existence, about the influence of one's actions on oneself and on the medium in which one lives, and about the realization that one's medium is also a composite unity in which its components are interconnected with each other, and therefore, that there is nothing in one's medium that is irrelevant. This expansion of love, it is not just a quantitative trend of *philic* relationships, but it is rather essentially systemic. It is an expansion of natural (or ecological) consciousness. It is a manner of seeing that is essentially inclusive, that open's the lover's eyes to see what is necessary for his beloved's conservation of existence, and therefore includes the conservation of existence of many other beings/things and ecosystems. In this visionary act, the lover becomes more and more aware of the complex connection of life phenomena, and that any act that he performs will have an influence on a whole ecosystem and ultimately on his particular beloved/s. In this sense, love is an essential human way of living (or conversing) that generates both eco-systemic knowledge and the desire to conserve its components and dynamics. Therefore, when I say that the ecology of love implies a systemic trend in terms of consciousness, I mean a fundamental *expansion of respecting the other's medium, and respecting the other's medium is basically respecting the legitimate existence of other beings and things* of the biosphere.

Respectful Relationship

Through particular consensual-cooperative relationships with particular others, the lover is able to perceive (or create) the general form or the class identity of those particular others and value it for its own sake. I think that Plato is correct when, beside his instrumental view of love, he suggests that the love of one particular person may lead to the love of all persons. In other words, it is through intimate loving relationships with particular human beings that the lover comes to perceive and value the general form 'human being' – that there are millions of other 'others' like himself, that he values *qua* 'human being' and therefore *respects* them as such. This is the essence of the Christian idea of 'neighbourly love' and becomes ecologically coherent only when related to consensual-cooperative relationships. The same happens through intimate *biophilic*

[160] Maturana and Verden-Zoller, *The Origin of Humanness in the Biology of Love*, 224.

relationships. A particular loving relationship with a particular dog, a particular hill, river, or a pack of foxes near home may lead to respect for every living being qua living being. It may lead us to develop an ecological consciousness at a planetary scale. That is, it is through biophilic consensual relationships that the lover *eventually* comes to love a whole ecosystem, the biosphere, life phenomenon, even a metaphysical God that embraces everything.[161] Briefly, an intimate socio-ecological relationship is the basis for the emergence of a truly inclusive environmental ethics; an ethics of respect and reverence for life phenomenon—a spiritual ethics.

Respecting every being qua being, or Nature qua Nature, is not just acceptance of the others' existence. What makes respect part of the phenomenon of love is that the lover's feelings and actions attentively consider the other's existence and well-being and Nature's systemic health. Thus, loving respectful relationships can also be seen as a creative force. Through the emergence of an inclusive natural consciousness, the lover eventually becomes aware that everything is connected in the biosphere in which he lives and that his actions inevitably take part in the construction and conservation of this biosphere. He becomes aware that his actions involve ethically respecting his co-existence with uncountable other beings, things, flows, cycles, etc. and therefore acts in a way that, appraising from his own ethical concern, does not unnecessarily reduce the possibility for other beings to develop their own life.

The emergence of the value of other beings qua beings entails an opening towards one's medium, and therefore towards different beings/things that are part of one's medium. This opening, I have already said, is a predisposition to listen to the other without pre-judgment and instrumentalism. It is what makes it possible to really 'approach' the other and to start a loving conversation. That is, a respectful disposition towards the other, the 'unknown' other, *is the bedrock for the establishment of consensual-cooperative loving relationships*. As Singer elegantly comments,

[161] How much inclusive and holistic the love of the medium is, depends on each human being. However, I think that love, as a human event, is limited by what it means to be human in Cognitive and ecological terms. I do not think that we would be able to love as the conceptual God's love does it.

'love of life' or 'cosmic love' is a 'disposition that excludes nothing *a priori*, an attitude that permits everything to be a candidate for our love'.[162]

This is when the systemic interdependency between respectful and consensual-cooperative relationships is completed. In synthesis, consensual loving relationships and respectful loving relationships are not separable. One does not prevail over the other. Both are part and parcel of a circular causality implicit in the ecology of loving, and connote the extremes of a whole complex spectrum of different intensities of intimacy that emerge from and through unique loving relationships.

Steps to Co-designing in love

I have described co-designing in love as an intimate conversation that is about co-facilitating the lives of the participants of that conversation. However, when this truly happens through the emotioning of love, the participants are aware that their designs and the consequences of them are not part of a totally closed system. Acting from a natural consciousness, the participants of an intimate process of co-design will apply an ethical framework based on the respect of a bigger ecosystem, a biosphere, which is constituted by many other beings. As I will explore in Chapter 6 from a more practical perspective, designing with respect implies (1) recognizing this biosphere is constituted by uncountable 'others' (the neighbour) who also have the right to live their own lives, and (2) acting accordingly. Since co-designing in love is a kind of consensual-cooperative conversation, it is in itself, a source of becoming aware of the human's coexistence with billions of other beings and diverse and encompassing eco-systems, and thereby acting with respect towards them.

Unfortunately, the actions of human beings have become more and more globalized in terms of the flow of natural resources, the exchange of ideas, wars, ideological colonialism, etc. Today, designers and consumers are influencing the lives and ecosystems of other beings with unprecedented complexity. The main problem is that everything seems to have a globalized dynamic in the mind of the Western designer but with the exception of having an ecological or natural consciousness that really values the major eco-system in which he inevitably takes part.

[162] Irving Singer, *The Harmony of Nature and Spirit* (Johns Hopkins University Press, 1996), 197, 198.

A globalized world without the emergence and nourishing of a natural consciousness is the worst imaginable scenario. Unhappily, it is the one we have been creating for the last three millennia.

4.3.5. What is the Art of loving?

I have criticised Platonic *eros* because it is epistemologically based on the idea that desire is basically a yearning for what the lover does not have, or about becoming what he is not. In this sense, Platonic desire is totally incoherent and contradictory to the ecology of life. For the Platonic lover, life on earth is not enough and therefore he desperately wants to escape from it. The Platonic lover understands love as a teleological process towards a state (the good) that ultimately transcends the process of loving and living as a human being.

I think that this view confuses and contradicts the essence of the process of loving in the ecology of life. Love is reduced to the realization of final ends, to a desire that is looking for the permanent situations—i.e. immortality. I think that, when a person thinks that love is the yearning of what he does not have or what he is not, love becomes an impossibility. Instead of loving, this person is a prisoner of his predefined ideas. He is incapable of accepting his own humanity. In this sense, the 'lover', as understood by Platonic *eros*, does not love but tries to control and to dominate.

I have asserted that the Platonic epistemology of desire and love is still strongly present in our global Western culture that understands the idea of well-being in terms of acquiring and controlling endless lists of things and beings. It is a culture that is adamantly attached to the supposed import of transcendental values. It is a culture that, based on the idea of endless progress and growth, endlessly intends to become something else. Accordingly, the incessant pilgrimage to attain a predefined state, or the anxiety of losing a state already 'achieved', generates patterns of lives that are anxious, painful, and ultimately destructive. This is certainly a main obstacle to understanding and living in the pleasure that love brings.

Love is not about attaining and then controlling anything which has been attained. Rather, it is about spontaneously *accepting and cultivating* one's humanness as part and parcel of the ongoing occurrence of life, and as part and parcel of the flow of the present. Love is not a product

or a final state, nor does it look for a final product or a final state. Love is a process, a verb—*loving*—that occurs in an ongoing present without the prison of a predefined teleology. Love is one's Cognitive state that accepts one's self-in-process and lives according to it. Love is about *consciously* (but spontaneously, not falsely) living within and through the ongoing course of Nature, one's own Nature.

I consider Maturana's account of love as the biological basis of this ongoing perspective of loving. He says that the emotion of loving happens in the flow-of-living-in-the-present in the legitimacy of everything. Loving, he suggests, is living in the spontaneous unity of everything. It is living in the corporeal well-being in the flow of social conviviality.[163] In this sense, Maturana links the process of loving with the ancestral notion of 'the path of Tao'—namely, the oriental idea of living in the well-being that emerges through the process of living without the suffering that comes with the attachment to anything that is declared transcendental, without looking for the permanent, without looking for any predefined consequence.[164]

Fromm proposes that loving is an art—'the art of loving', he calls it. And as an art, he says that love 'is an action', 'an activity'.[165] He also suggests that love is a 'personal experience'; therefore there are no 'prescriptions' to the practice of love. Yet he proposes that as with any art, love requires discipline, concentration and patience.[166] For me, the statement that love is an art, and that it entails discipline, concentration and patience, becomes coherent only when art is understood as a process that is important in itself and not as a medium to promote a master[167]. Only when man is free from the anxious desire of creating a master piece, does he behave as a loving artist. The artist, as a lover, is not perfect, evolved, immortal, or free from conflicts. Nor does he look for anything like this. He is a human being who is occupied (not *pre*occupied) with his life; a life full of life, of happenings, and thereby with many conflicts. The artist makes the conflict visible by dealing with them in his ongoing present.

[163] Maturana, "Biología del Tao o el Camino del Amar," 98,99.
[164] Ibid., 97.
[165] Fromm, *The Art of Loving*, 17.
[166] Ibid., 84-94.
[167] In contrast, I have criticised Fromm's idea that love is a medium to overcome human's loneliness, that is, to recover the union with the world. His idea of art and love is essentially teleological.

Ultimately, wondering about the ecology of loving seems to show that the art of loving *is* the socio-ecological manner of dealing with the most important art of all: the art of living. This art, when it happens through love, is about continuously co-creating and conserving the ongoing symphony of life by accepting one's own and the other's legitimate participation in it. Through this loving dance, man should accept his ephemeral essence, be able to conserve his presence on earth, and be able to cultivate the pleasure and meaning that spontaneously emerges through it.

Steps to Co-designing in love

Co-designing in love is an art. Co-designing in love is about cultivating the spontaneous flow of human presence on earth. It is about co-creating a biosphere. This occupation occurs in the present. Ecological design is about dealing *with* our present, not *about* an uncertain future – by socially and ecologically dealing with our ongoing present, so that we may contribute, as a consequence, to ensuring a more sustainable future. But the essence of human socio-ecological sustainability is in the acceptance of, and consciously co-living through, the flow of the present. When the present becomes a means to an end – a future – there is no love, no co-designing in love, and probably no sustainable action.

I see co-designing in love as the ongoing occupancy that occurs when, for example, children play or artists make. The common thing between children playing and craft-men making is that both design by being free from the anxiety of the future. Time seems to become nothing other than the experience of their interconnected inner, social and ecological present – tending the natural connection of their body with their world. On the basis of these examples, ecological design is about co-facilitating the emergence and conservation of human childhood and craftsmanship.

In general terms therefore, the execution of ecological design in the process of living is paramount. *It is about co-creating platforms that facilitate the emergence and cultivation of loving conversations*—that is, socio-ecological actions.

The emotion of loving may well have been diminished in Western culture. For instance, it recurrently negates children's childhood and the artist's spontaneous making by respectively demanding them to rapidly become adults and to make something with a 'useful' purpose.

However, although sporadic, loving has not disappeared in our culture. If there was no love at all, there would be no human beings standing on earth. In this situation, the task of the designer, that is, of every human being, is to start a process of listening to himself and the other. And (real) listening only happens when man is flowing with the present. This is not easy because listening only occurs when the designer is acting from a loving disposition that cannot be rationally designed. However, the designer has a great hidden resource. From his power to appraise and become aware of unsocial and un-ecological conflicts and crises, the designer can create platforms that *invite* himself and the other to attentive listening – that *facilitates* the eventual emergence of mutual listening. When this occurs, a respectful conversation instantaneously emerges. If this is conserved, a loving pattern, a recurrent loving conversation, may be constituted, and with it, a major change of direction, initiated.

***

Every human's life and therefore every lover and loving conversation happens while inhabiting a particular medium or ecosystem. All that I have said about the disposition of love, loving conversations and co-designing-in-love would become just abstract ideas if it is not understood that they emerge from the intimacy of living in interaction with particular others, with and from particular ecosystems.

Thus, when I say that co-designing in love is part of the art of living, or that it is the co-creation of platforms that facilitate loving conversations, or that it is a co-creation that is part of the ongoing flow of living as a human being, I ultimately mean that it *is about co-creating-conserving our home* in the world. It is in the process of homing where conversations really take place as *eco*-logical events. It is in the process of homing where co-designing in loving is defined, where it becomes physical, real, alive, localized, communitarian, and unique. This is why ecological design or co-designing-in-love is uniquely valid in the eco-cultural system in which it occurs. It does not accept universal commandments and prescriptions. When this happens, the ecology of loving disappears.

Ecological design then, *is about co-designing our homes through loving conversations.* The particularity of co-designing our homes through loving conversation (or more simply Homing-in-loving) is the topic of the next part of this thesis.

SECTION III: STEPS TO AN ECOLOGY OF HOMING

Chapter 5

Towards an Embodied-Ecological Ontology of Homing

The *oikos*—namely, home, household—is, literally, what ecology studies. The understanding of the phenomenon of home has been a central issue in my life. I study ecological design, or *eco*-design, mainly because I feel that a more holistic and ethical perspective of the act of designing in relation to the phenomenon of home is needed. I am truly interested in exploring how we can sustain our participation in the world, how we make ourselves at home in the biosphere, and how we can understand the role of design in it. So, if one of the central research-questions in this thesis is to explore the notion of ecological design, home becomes a central topic.

But, what is home? I cannot claim that I have found an answer. However, I do not see this as a problem. An 'unsuccessful' final answer to this question seems, I think, to be a fundamental aspect of the understanding of home. It seems to me that there is no final or definite answer to this question and that the act of wondering, in this case, is more important than that of answering. I believe this is because home is not a final object or an artefact. We live in and we are homes. But the way we are in home is by being the actors of an ongoing process of making and cultivating that home. If ecology is the study of the home, or more specifically, the understanding of the interaction between living beings that, moment after moment, constitute a biosphere – a home – it follows that there is no final home to be described and analysed; a final description of home is, in this sense, futile. Home is not an object, but a *process*. In this sense, the notion of home becomes what, from now on, I will call *homing*.

Thus, it follows that homing has no metaphysical ontology. Its ontology occurs dynamically within the embodied ecology of living. In this sense, my query about the phenomenon of homing has no intention of leaving the world, nor is it trying to define homing in transcendental and objective terms. In contrast, it is a query that emerges from my embodied-ecological existence,

from and through my process of homing – my process of participating and creating the world in which I live – and therefore I am attending to it, and giving an explanation of it, from there.

My initial intention in this chapter is to link the phenomenon of homing with the human ecology of living – i.e. the dynamic process of conversing – that I have explored in Chapters 1 and 2. In other words, the aim of this document is to explore the process of homing in embodied-ecological terms. I shall argue that homing is essentially another form of explaining what phenomenology refers as being-in-the-world. That is, that homing, in a human domain, is ultimately what emerges, moment after moment, in the process of living in conversation.

My second and most important intention both in this and in the following chapters however, is to explain that homing is not just an unconscious experience – bio-cognitively, the human structural coupling with a medium – but also an experience-based state of consciousness. It is *being ecologically aware* of the great importance of each conversation, particularly intimate ones, in the generation and cultivation of one's inhabitation in the world in a meaningful and sustainable way. In this sense, homing is related to the establishment and cultivation of *intimate relationships*, as I have explored it in Chapter 3.

The questions that I will deal with in this chapter, and that I will extend to the two following ones, are: how can we explain the phenomenon of homing in the human domain? How can we understand Ecological Design as part of the process of homing? And most importantly, how can we conserve the human process of homing in the current globalizing era?

In order to deal with the first question, I will explore the notion of homing from a linguistic, or more appropriately, an etymological domain. Particularly, from two Western terms that are related to the notion of 'home': (1) the German *bauen*, as dwelling-in-the world, explained by Heidegger, and called by Ingold 'the dwelling perspective', and (2) the Spanish *hogar*, as fire-place, or as an ancient Classical manner of understanding and organizing communitarian living. Both terms, will help me to generate a more holistic synthesis of homing in social, ecological and Cognitive terms.

Before doing this however, let me briefly summarize the mainstream vision of home from the modern epistemology—mainly, a vision that has decomposed home into disconnected domains, and reduced it to isolated and static forms. Although the modern epistemology of home has been rejected, especially by feminist frameworks, it is still strongly rooted in contemporary society.

The Modern Home: The Dissection and Reduction of Homing

The vision of home as a static object comes from the cradle of our culture. This is clear in Aristotle's understanding of 'place', as explained in *Physics*, books III and IV.[1] Aristotle generally understood the notion of place as a prerequisite for the existence of things. In fact, for him nothing (including humans) can exist without a place. Place and things are ineluctably related. In many ways, his vision implies, at least implicitly, a sort of meta-phenomenological perspective of humanness—namely, that the individual and his world form an indivisible totality. However, this becomes complicated and ultimately negated by Aristotle's belief in a more essential constitution of place that transcends the inhabitation of things (including human beings), thereby operating as a fixed container of life. Aristotle sees place as a priority over everything. He points out that place 'takes precedence of all other things' (*Physics* 208b35). The 'power of place', he claims, '[is] a remarkable one, and prior to all things, since that, without which no other thing is, but which itself is without the others, must be first' (*208b34-209a1).* From this, place then appears to Aristotle as a prior, constant, and universal, 'vessel'. As Edward Casey explains, in Aristotle's perspective 'a minimal requirement of place is to be selfsame—to be the *same* place for different things located in it… [It] must be "unchangeable"'.[2] Casey explains that this permits Aristotle to generate his most explicit composition of place: 'the first unchangeable limit (*peras*) of that which surrounds' (212a20-21). In this sense, Aristotle ultimately understood place as an 'unmoved container of a body' (212a20).[3]

[1] Unless otherwise noted, I shall cite the following translation: Aristotle, *Aristotle's Physics, Books III and IV*, trans. Edward Hussey (Clarendon Press, 1983).
[2] Edward S. Casey, *The Fate of Place: a Philosophical History* (University of California Press, 1997), 55.
[3] Aristotle, *Aristotle's Physics.*, trans. W. Ross (Oxford University Press, 1936). Quoted in, Edward S. Casey, *Getting Back Into Place: Toward a Renewed Understanding of The Place-World* (Indiana University Press, 1993), 55.

In many ways, I believe that Aristotle's philosophy built the epistemological basis for a modern perspective of the notion of home (and that of place, and biosphere)—namely, as a pre-conceived, permanent structure or platform over which human beings are positioned, so that they can use it for the development of their life. As we have seen in Chapter 1, the separation of being and world (or subject-object, culture-Nature) became a major feature of modern epistemology. It is in the philosophy of Descartes that we find this perspective in its most definitive form. For Descartes, the essence of man is that he is first and foremost a thinking being: 'I think, therefore I am', he famously asserts. By this, he explicitly creates room for the cultural belief that man generates his world *a priori* – in an abstract, disembodied and unplaced domain. Only after this, does man come to the physical world – i.e. Aristotle's 'vessel' – to execute his ideas.

Thus, in modern epistemology, home is deconstructed into irreconcilable domains. On the one hand, there is an abstract, ideological home that belongs to a cultural realm and therefore pre-exists, and ultimately negates our embodied-ecology of living. It is a disembodied home that is shaped through inter-human, or cultural, interactions only. On the other hand, home is reduced to the notion of house, a physical structure, a container that people simply occupy—an inert 'nest' for the mind—namely, the body, the house, and Nature. This physical house becomes, probably more than ever in historical terms, just the Garden of Eden which is at the service of the thinking, cultural man.

The eco-cultural consequences of this modern understanding of home have been catastrophic. We are now realizing, through experience, that the Aristotelian pre-established 'container' of human life was neither infinite nor permanent. The so called 'cultural man' generates a behavioural ethic that is blind to its influence on the rest of Nature. After a few thousands years of extreme cultural anthropocentrism our eco-cultural process of homing – the human participation/inhabitation in the network of life – is at the edge of collapse. Even more, in what seems to be an endless process of globalization, the so called cultural man has lost his connection with his roots, both in social and ecological terms. There is not only a rapid loss of cultural identity but also of a meaningful connection with the landscape. (I will come back to this point in the next chapter).

In this context, and especially since the industrial revolution, Modern design – or technocratic design – has focused its energies on the creation of a 'cultural' structure that has the aim of nesting modern consumerism and anthropocentrism, and which, needless to say, is conceptually dislocated from the Natural world. As I pointed out in Chapter 1, design is understood as part of a human 'artificial' realm positioned over the 'natural' one that fuels the former's unstoppable progress. In this sense, following Cartesian epistemology, design, associated with the notion of home, can be presented as follows: 'I design a home, therefore I live in it'. The Modern designer creates things *a priori*, so others, the mass, can then use them. The modern Architect plans universal models of houses which are then positioned over a land so others can then live in them[4]. All those designed, 'pre-erected things' however, influence (because they are part of) the natural world. But, in a modern perspective of design, Nature neither informs design, nor does design affect the dynamics of the Natural world, simply because they belong to 'different' and 'unconnected' domains.

The anthropologist Tim Ingold refers to this modern vision as 'the building perspective'. It is a vision, he explains, that presumes that 'worlds are made before they are lived in'.[5] Criticising the culture-Nature (or artificial-natural) dichotomy, Ingold points out that the 'building perspective' believes that human beings 'inhabit the various houses of culture, pre-erected upon the universal ground of nature – including the universal of *human* nature'.[6] From this standpoint, Ingold explains that 'to suggest that human beings inhabit discursive worlds of culturally constructed significance is to imply that they have already taken a step out of the world of nature'.[7] So, in line with Ingold, one of the aims of this thesis in general and the understanding of *homing* in particular, is to overcome the modern human-Nature (or more specifically, artificial-natural) dichotomy.

[4] Ingold explains the modern point of view of the architect as follows: 'first plan and build the houses, then import the people to occupy them.' In Tim Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (Routledge, 2000), 180.
[5] Ibid., 179.
[6] Ibid.
[7] Ibid., 14.

Another difficulty which is part of this modern understanding of home, and which is particularly present in industrialized and consumer societies, is the strict separation between the private and public realms and the reduction of home to the former. In his book, *The Secret History of Domesticity*, Michael McKeon explains that this modern distinction was already present in the Classical Greek terms *polis* and *oikos.* In Ancient Greece, the *polis* was the domain of the public, of the male citizens, of 'political activity that entailed the full actualization of the self'. The *oikos*, in contrast, was the domain of the private, the 'household and the family'. As he explains, in Hannah Arendt's terms, '"private things" pertained to the material necessities of the household: to the physical labour of sustaining the human body and reproducing the human species, hence to women, children, and slaves'.[8] So, home was not only reduced to the private, but also subjugated to the masculine domain of the public.

This private and sexist assumption of home was maintained under the notion of 'domesticity'. A major aspect in the modern world, and influenced by Marx's philosophy of labour processes, is the separation of domesticity from work.[9] This separation is evident both in the architecture of familiar houses and in the shape of the cities. As the historians Davidoff and Hall assert, in Victorian times, and particularly in the progressive middle class, 'productive work' and the 'domestic area' were separated in 'social, physical and financial' terms. Within the house, for instance, domestic activities, such as cooking, eating, washing, etc, were considered the 'back stage' and had to be separated from 'polite social intercourse'. At a larger urban scale, the separation of the 'suburban villa' from the major commercial/productive area was a major policy of urban planning.[10] But, what is even worse is that this 'non-labour' conception of home was also gendered as female, and with it, incongruently reduced to an emotive and reproductive realm. The association of this domestic home with women, and its subordination to the *public* – to the male's political and workable domain – is clear in Davidoff and Hall's revision of the life-style of the English middle class home in the eighteenth and nineteenth centuries.

---

[8] Michael McKeon, *The Secret History of Domesticity: Public, Private, and the Division of Knowledge* (The Johns Hopkins University Press, 2005), 7.
[9] Ronald John Johnston et al., *The Dictionary of Human Geography*, Fourth Edition. (Blackwell Publishing Ltd, 2000), 420.
[10] Leonore Davidoff and Catherine Hall, *Family Fortunes: Men and Women of the English Middle Class, 1780-1850* (Routledge, 2002), 359.

> Women had traditionally organized the feeding of the household and care of young children, and they took most responsibility for either doing or overseeing enlarged domestic tasks. These were incorporated into general moral and religious duties, part of personal service to the master of the household as a symbol of love and subservience, and ultimately a central part of feminine identity.[11]

Feminists, particularly in the last century, have reacted emphatically to the modern separation of public and private realms, to the reduction of home to the latter, and to the subordination of home and women to the dominant public sphere. They have critically challenged this dichotomy and therefore have contributed to an expansion of the notion of home. For instance, they argue that, in this modern perspective, there is a tendency to understand the significance of home just 'as metaphor for experiences of joy, protection, comfort, and belonging to place'.[12] From a masculine perspective, home can be constructed as a loving, nurturing, and playful niche, fundamentally separated from the antipathy of politics and work. But, as feminists assert, the residence can also be a place of 'negative experience', a place of 'violence' and 'abuse'.[13] Also, they suggest that the separation of home and work is a 'distorted social ideology'.[14] Domestic labour shows that home (understood in reductive modern terms) can also be considered as work. However, the most fundamental point in the feminist criticism, and one that is central to our explanation of *homing*, is that home cannot be coherently understood within the private-public dichotomy—the *polis* and the *oikos*. As Blunt and Dowling explain, there are two important implications to be learned from the feminist framework: first, 'that home is best understood as a site of intersecting spheres, constituted through both public and private'; and second, that 'the intersection of public and private in creating homes are geographically and historically specific'.[15]

However, in spite of the many eco-cultural initiatives that are overcoming the public-private dichotomy, such as the constitution of a more egalitarian gender society, and the realization that the household implies work and that it may also be a platform of productive external work, and

[11] Ibid., 395.
[12] Lynne C. Manzo, "Beyond House and Haven: toward a Revisioning of Emotional Relationships with Places," *Journal of Environmental Psychology* 23, no. 1 (2003): 49.
[13] Ibid., 50.
[14] Ahrentzen, in Ibid.
[15] Alison Blunt and Robyn M. Dowling, *Home* (Routledge, 2006), 18, 19.

also, in spite of a more holistic theoretical proposition of home, a large part of the modern epistemology of home is still deeply rooted in the Western – and already global – way of living. In the current neo-liberal and capitalist world, supported by the media, multinational corporations and political discourses, there is an unquestionable promotion of the concept of a private home.[16] The main problem here, in socio-ecological terms, is the generation of an atomized home that operates in extreme individualism. People are encouraged to satisfy their personal needs and dreams, to construct their lives for their own benefit, without paying much attention to that which is beyond the boundaries of their privacy. Private homes, and individualistic lives, are connected to major eco-systems only in terms of the exploitation of socio-ecological resources for the generation of comfortable lives. (I will also come back to this point in the next chapter).

In summary, the modern epistemology that separates human existence in general and the phenomenon of home in particular into inexorably disconnected realms, and that still delineates the dominant manner of living in the Western global culture, constructs a notion of home that is complicated. There is, on the one hand, a home that is understood as human cultural interactions, such as a family, a neighbourhood, society, and nation. On the other hand, there is home as a physical structure, such as a family house, which in neo-liberal economies is functionally dislocated from other more 'public homes' such as a village, town, and city. And, still, there is home in more 'natural terms', such as a particular valley, or a mountain, bioregion, and, why not, the whole planet earth. Unfortunately, this epistemological and practical separation of homing has triggered several socio-ecological crises.

In many ways, we know, or at least we feel, that all these domains are connected. However, the modern epistemology, so deeply rooted in our way of living, prevents us from seeing the notion of home in more holistic terms. I think that overcoming the dichotomy of mind-body, culture-Nature, artificial-natural, private-public and planning-inhabitation, is central to the explanation and practice of *homing* in more ecological terms.

[16] Sophie Bowlby, Susan Gregory, and Linda McKie, "'Doing home': Patriarchy, Caring, and Space," *Women's Studies International Forum* 20, no. 3 (1997): 343.

Towards a More Holistic Perspective of Homing

The way to understand homing in more holistic terms is, I believe, by following a more embodied-ecological perspective. In contrast to Cartesian dualisms, our homes, as I shall examine, emerge from, and are conserved through, our intimately dynamic embodiment-in-the world through the course of interacting with other living beings and non-living things. In this sense, as I have suggested earlier, the notion of home is better understood, in ecological terms, as a continuous process of *homing.*

Bauen – 'Dwelling-in-the-world'

A starting point for the understanding of homing can be found in phenomenology. Ingold, looking for an alternative to what he refers to as the 'building perspective', proposes what he calls the 'dwelling perspective'. As Ingold suggests, the dwelling perspective, as opposed to modern epistemologies, does not understand the human-medium relationship in general and perception in particular, as the 'revelation of a pre-existent form but the very process wherein form is generated and held in place'. So, he explains that the starting point to understand 'how animals and people make themselves in the world' is to comprehend the dynamics of the '"agent-in-its-environment", or what phenomenology calls "being-in-the-world", as opposed to the self-contained individual confronting a world "out there"'.[17] To make an argument for the dwelling perspective Ingold turns to Heidegger's groundbreaking essay 'Building Dwelling Thinking'.

Adopting a critical perspective towards the modern understanding of the acts 'to build' and 'to dwell', Heidegger offers a new synthesis of these terms by attending to the following two questions: 'What is to Dwell?' and 'how does building belong to dwelling?'[18] Heidegger starts questioning the modern perspective in which dwelling and building are 'related as ends and means' respectively, but they remain as two 'separate activities'. In this sense, dwelling is merely understood as the habitation or activity in a structure already built. In contrast, Heidegger unites

[17] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 173.
[18] Martin Heidegger, "Building Dwelling Thinking," in *Poetry, Language, Thought* (Harper & Row, 1971), 145.

them in whole dynamics. He suggests an alternative view in which 'building is not merely a means and a way towards dwelling—to build is in itself already to dwell'.[19]

In order to explain this statement, Heidegger turns to the etymology of building. *Bauen*—German for 'building', is a derivative from the Old English and High German *buan* which means 'to dwell'. Heidegger asserts that the original meaning of building as dwelling has been lost, but he recalls its roots, for instance, in the term 'neighbour', which means one 'who dwells nearby'.[20] Also, he suggests that, if to build is already to dwell, it gives a new approach to understanding the notion of dwelling which commonly signifies 'to remain, to stay in a place'. Rather, dwelling also signifies activity. What is this activity? It is ultimately, what he calls being-in-the-world. As he explains, '*Buan* is related to *bin*; and *ich bin*, I am, and *du bist*, you are, the imperative form [of] *bis*, be'. Heidegger so asserts: 'what then does *ich bin, du bist* mean? The old word *bauen*, to which the *bin* belongs, answers: *ich bin, du bist* [I am, you are] mean: I dwell, you dwell'.[21] That is, being-in-the-world and dwelling-in-the-world are the same.

Heidegger teaches us that, at the same time, *bauen* has two other meanings that are 'comprised' within its most essential sense, dwelling: the first is 'to cherish', 'to protect'—specifically 'to cultivate' or 'to till' the soil. The second is to construct, Latin a*edificare*—'raising up of edifices'. Heidegger's worry is that building as 'cultivation', and building as 'construction', have become the dominant, exclusive senses of *bauen*, consequently losing their connection to its most significant meaning, that is, dwelling-in-the-world. It is in this 'oblivion' that building –as construction and cultivation – becomes favoured in the productive contemporary world, and dwelling is reduced to just the occupation of built structures. As Ingold comments, 'having forgotten how the latter activities [i.e. cultivation and construction] are grounded in dwelling, modern thought then *rediscovers* dwelling as the occupation of a world already built'.[22] In contrast, Heidegger argues that 'building is really dwelling'; and 'dwelling is the manner that

[19] Ibid., 146.
[20] Ibid., 147.
[21] Ibid.
[22] Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 185.

mortals are on the earth'.[23] So, he asserts that 'we do not dwell because we have built, but we build and have built because we dwell, that is, because we are *dwellers*'.[24] This critically overcomes Descartes' separation of thinking and being—i.e. 'I think therefore I am'. Thinking, planning, designing or building are not abstract activities but rather they are already being-in-the-world or to dwelling-in-the-world.

Heidegger's perspective of dwelling generates a phenomenological basis for the understanding of homing. Two things seem to me important to comment on. First, to understand human beings as 'dwellers' means that we are in a permanent process of home-making. Homing, in terms of dwelling-in-the world—namely, being-in-the-world—is not the habitation of a pre-given place, as an Aristotelian container in which one is positioned, but the very dynamic process of constituting a world, a home, through the essential human embodiment in it. Thus, there is no consummated home, but the enactive process homing. Nothing is permanent in life, not even the most stable buildings of our culture.[25] The common meaning of dwelling – i.e., to stay in place, to remain, to preserve – is only possible through ongoing activity. In biological terms, this is ultimately human beings' capacity of conserving their lives—namely, of dynamically conserving their autopoiesis and structural coupling.

Second, to argue that human beings are dwellers-in-the-world, constitutes a more holistic and non-dualistic manner of understanding human homing, in terms of overcoming a supposed artificial-natural dichotomy of home. As Ingold suggests from his study of Heidegger's argument that 'to build is in itself already to dwell', every human action or creation is part of dwelling in the world; it emerges from it. This supports what we have seen in Chapter 1: the so called designed or built environment is not separated from our embodied-ecological existence, but is part and parcel of it.

[23] Heidegger, "Building Dwelling Thinking," 148.
[24] Ibid.
[25] As Ingold asserts, 'building…is a process that is continually going on, for as long as people dwell in an environment. It does not begin here, with a pre-formed plan, and end there, with a finished artefact. The 'final form' is but a fleeting moment in the life of any feature, when it is matched to a human purpose, likewise cut off from the flow of intentional activity.' Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, 188.

> '…[T]he forms people built, whether in the imagination or on the ground, arise from the current of their involved activity, in the specific relational contexts of their practical engagement with their surroundings . . . In short, people do not import their ideas, plans or mental representations into the world, since that very world, to borrow a phrase from Merleau-Ponty [*Phenomenology of Perception*, 1962; 24], is the homeland of their thoughts. Only because they already dwell therein can they think the thoughts they do.[26]

Thus, the commonly called 'built environment', such as a family house, or any human creation that nests our process of homing, is part of our embodied-ecological living in the world. Home as a cultural house and home as a natural nest are inseparable—that is, following what we have seen in Chapter 1, there is no artificial or cultural home separated from a natural or ecological one[27]. In the process of homing (or dwelling, or living) we also generate a built environment constituted by houses, communities, cities, etc, all of which are part and parcel of our natural, ecological existence. Briefly, the process of homing is one whole human participation and creation of a world from within.

Heidegger, in fact, presents the building, the constructed thing, as a form that emerges from human dwelling, but also as a 'distinctive letting-dwell'. As Iris Marion Young explains Heidegger's perspective, 'we dwell by making the places and things that structure and house our activities'.[28] Our constructions and cultivations of the built environment, as part of the main process of homing, also select and facilitate a particular manner of dwelling or homing-in-the world.

Hogar – The Communitarian Fire

Heidegger's explanation of dwelling, and later on, Ingold's 'dwelling perspective', are evocative: they help us to locate the process of homing in embodied and enactive terms, and to overcome the artificial-natural dichotomy. However, this phenomenological perspective, especially Heidegger's etymological argument of dwelling, does not clearly explain *how* human homing occurs both in Cognitive and ecological/relational terms. I shall argue that it is necessary to

[26] Ibid., 186.
[27] Ingold argues that 'by taking the animal-in-its-environment…as our point of departure', it is possible to overcome 'the orthodox dichotomies between evolution and history, and between biology and culture.' Every human cultural and historical human action, as embodied in the natural relational world, is 'part and parcel' of the whole evolutionary process of life. Ibid., 187.
[28] Young, in Blunt and Dowling, *Home*, 4.

explain this more explicitly because (1) it allows us to understand the Cognitive dynamics from which different ways of homing emerge and are cultivated; and (2) it provides a way to understand how we can dwell-in-the-world in a manner that is *meaningful*, and eventually, to develop an ecological consciousness that leads us to 'dwell-in-the-world' *sustainably*. In order to deal with these two points, I will again start from an etymological realm, this time, from the Spanish term *hogar*.

Spanish *hogar,* meaning 'home', comes from the word *fogar,* which is a derivative of the Latin *focus*, meaning 'fire', or more specifically, the fireplace of a house. The French historian, Fustel de Coulanges, in his book *The Ancient City*, explains that, in every ancient Greek and Roman family-house, there was an altar on which there were always a few 'lighted coals'—Latin, *focus*.[29] The fire was the heart of the house, a sacred place for the Classical family. It was considered 'divine', the 'providence' of the family and the house.[30] So, it was necessary to 'keep the fire up night and day', since, 'an extinguished hearth' meant an 'extinguished family'.[31] The worship of fire, Coulanges explains, is in fact an ancient Indo-European religion[32], which emerged from times in which the fire articulated social, ecological and spiritual processes. Historically, we know that the fire has been at the centre of human eco-cultural development; it has meant gods, power, reverence to dead people, combustibility, light, warmth, defence, weaponry, and a centre of gathering; it has also allowed the opening of biota for the emergence of agriculture, shaped the form of houses and villages, and so on.[33] In this sense, in an Indo-European context, Coulanges argues that the fire of the home is 'truly the god of human nature'.[34]

> [*Hogar*/*fuego*, home/fire,] is 'a sort of a moral being; it shines, and warms, and cooks the sacred food; but at the same time it thinks, and has a conscience; it knows men's duties, and sees that they are fulfilled. One might call it human, for it has the double nature of man; physically, it blazes up, it moves, it lives, it procures abundance, it prepares the repast, it

[29] Fustel de Coulanges, *The Ancient City: A Study on the Religion, Laws, and Institutions of Greece and Rome* (BiblioBazaar, LLC, 2008), 29.
[30] Ibid., 32.
[31] Ibid., 29.
[32] Ibid., 33.
[33] For more information see, Stephen J. Pyne, *Fire: a Brief History* (University of Washington Press, 2001).
[34] Fustel de Coulanges, *The Ancient City: A Study on the Religion, Laws, and Institutions of Greece and Rome*, 38.

> nourishes the body; morally, it has the sentiments and affections, it gives man purity, it enjoins the beautiful and the good, it nourishes the soul.[35]

I see the spirituality of fire as one of the last indigenous or truly native dynamics of the Western European culture. The fire-pit was not just a symbol, but a way of living. The fire was a constitutive principle of the ancient Indo-European family, a way of accepting, respecting and celebrating a whole eco-social human existence. The fire connected humans and Nature in a whole dynamic. It was the altar, the practical centre of an intimate, communitarian (or ecological) manner of living. Each communitarian group had its own, and unique, eco-social fire, that is, a particular, sacred *manner of living together*. The fireplace not only represented them, they were the fireplace. The fire was the centre of their eco-social gatherings. The cultivation of the fire ultimately was the cultivation of their communitarian life. Community comes from the Latin *communis* (from L. *com, 'with'* + munis, 'duties'), meaning 'fellowship of relationship and feelings'.[36] In other words, their communitarian everyday activities, both in social and ecological terms, were a constitutive part of the fire. The fire-place was ongoing intimate relationships, *homing*.

This eco-cultural and dynamic process connects us, in etymological, ecological and Cognitive terms, with the human practice of conversing. As I explain in Chapter 2, conversation, from Latin *conversationem*, means 'the act of living with', which is a derivative of *conversari* , 'to live with', literally 'turn about with' (L. *com*, 'with' + *vertare*, 'turn about'). Therefore, we can say that *hogar*, home, which comes from the Latin *focus*, communitarian fire, is an *eco-cultural* term that evokes *human's existence in conversation*—the human manner of living. Furthermore, as I will argue in the next chapter, it is in that intimate process of communitarian homing in which we develop particular modes of conversing. In other words, homing, *as Hogar*, is a particular dynamic network of eco-cultural conversations.

[35] Ibid.
[36] *The Oxford English Dictionary*, 2nd ed. (Oxford: Clarendon, 1989).

Conversing, Homing, and Loving

As a synthesis of *bauen* and *hogar*, homing is a relational and ongoing process of creating and cultivating our being-in-the-world. We could say, as observers, that every animal (including humans) is continually participating in the ecology of life, and through it, making itself at home on planet earth. Homing, in this sense, is a major animal event. However, human beings have a particular manner of homing. As we have seen in Chapter 2, conversation is the human manner of living. It is through the ongoing living in conversation that we participate in the network of life. *It is through an ongoing living in conversation that we, human beings, make ourselves at home in the world.*[37]

Thus, strictly speaking, homing and conversing refer to the same thing in human ecological terms—namely the embodied-ecological process of existing as human beings. On the one hand, homing, (as a synthesis of 'dwelling-in-the-world' and communitarian fireplace, or *bauen and hogar* respectively) stresses that in each conversation we ineluctably create and cultivate our homes in the world. On the other hand, human existence in conversation clarifies how this ongoing process of homing (as dwelling-in-the-world, and communitarian fireplace) takes place in human Cognitive terms.

Thus, as the human *eco*-logical manner of living, every process of homing is defined and conserved moment after moment by particular conversations. And simultaneously, a form or pattern of homing tends to define the way everyday conversations take place. Also, since a particular form of conversing is dynamically defined by human emotions, we again arrive at a similar conclusion, as that suggested in Chapter 2: it is by cultivating particular patterns of emotioning – which is part and parcel of our existence in conversation – that we create and cultivate particular ways of homing.

[37] Following Heidegger's phenomenology of dwelling-in-the world, Ingold suggests that it is by an ongoing existence in dwelling that 'animal make themselves at home in the world' and that this includes human beings. However, this is too general, since it does not explain, beside of clarifying that human intentional/planned designs are part of a whole existence in dwelling, *how* human beings dwell in the world.

In this sense, the Modern understanding of home is not the result of abstract disembodied and un-placed activity, but it is a manner of conversing based on some emotions that encourage the establishment of hierarchical and competitive ways of homing that is epistemologically disarticulated and separated into different realms. By negating the human's embodied and ecological existence, the modern form of conversing is unable to offer a coherent synthesis of homing, and what is worse, it *cannot develop a coherent and harmonic sense and practice of homing*.

In contrast, a more holistic, inclusive and diverse manner of homing can only emerge and be conserved through those emotions that encourage respect, co-operation and consensus, among other behavioural dispositions. I have suggested that this emotion is loving. In Chapter 3, I have suggested that *intimate relationships* form a circular causality with the emotion of loving. That is, loving emotioning allows the emergence of intimate relationships, which, in turn, allows the triggering and cultivation of loving emotioning. Also, in Chapter 4, I have argued that it is through the emotioning of loving that we are able to listen to ourselves and to the other and, eventually, to start and cultivate a socio-ecological form of conversing/homing. Thus, the emergence and conservation of intimate relationships are the core of the process of homing, of human's fire-pit, from which a consensual-cooperative manner of homing (i.e. a loving form of conversing) emerges. And loving, in turns, is the main emotion that allows a process of homing to be established and cultivated. Now therefore, I can say that *the essential dynamics of human ecology is homing in love.* Homing and loving are not only interdependent and interconnected. But *they are one whole dynamics—homing-in-love.*

Through homing-in-love a *natural or ecological consciousness* starts to emerge and be conserved. In this way homing is also a state of consciousness that is expansive, visionary and inclusive. As I pointed out in Chapter 4, from intimate or consensual-cooperative relationships we learn to *respect* the bigger environment in which we exist, both in social and ecological terms. That is, it is from our fire-pit that we learn to respect the legitimate existence of other fire-pits, other ecosystems, and eventually the whole biosphere in which we exist. In this, sense, *through homing-in-love the biosphere becomes an eco-sphere*. We become aware that it is in every

conversation, in every ecological human interaction, in which we construct and cultivate the home in which we live. Non conversation is trivial in our process of homing. From a truly ecological perspective, every conversation, wherever and whenever it takes place, influences to some degree, our manner of homing, and therefore the whole medium in which we exist, from the local to the global. We understand that the complex interdependency of different scale-linked ecosystems ultimately constitutes a whole dynamics. Moreover, it is in this realization, in the experience-based sensing that our inner self-in-process, our emotions and appraisals, and our outer intimate and cooperative relationships and respectful global interactions are all interconnected; or in the realization that self-love, social love and ecological love are interdependent; that, as happened in the ancient Indo-European family, our fire-pit is sensed as Sacred.

***

Homing-in-loving is what I will examine in the next two chapters, but contextualized in our globalized lifestyle. The questions I will explore are: how can we develop homing processes that have the aim of creating a sustainable eco-cultural manner of living in the present world, and that emerge as an alternative to the current destructive, individualist, competitive and displaced manner of homing in the Western-Global culture? How can we create a manner of homing in which we can restore intimate, local ways of acting, while being aware that it is through these local actions that we participate in a whole biosphere? How can we have a local living while being aware of our global connectivity? What should be the role of global connectivity in a local manner of living?

Chapter 6 will be focused on more practical aspects of homing in a global age from spiritual, social and ecological domains, and what I consider important for the eventual re-emergence of homing-in-love in a global age. In Chapter 7, I will explore more deeply how design is part and parcel of homing-in-love in a communitarian domain. In order to do this, and following the idea that every fireplace defines a way of conversing and homing in the world from within, my study

of ecological design in a communitarian domain is focused on three particular Western-European ecovillages.

Again, attending to these questions is *my* exploration of homing in a global age and therefore I do intend to moralize or to claim a transcendental ontology of homing. (Again the ontology of homing is an embodied-ecological phenomenon.) Rather, it is a reflection that *invites* the reader to question his current form of homing and to reflect upon how we can re-start a process of homing that enhances ecological consciousness – i.e. the consciousness of the 'fire', in a global era.

I have briefly explored the notion of homing using two Western eco-cultural terms (*bauen as* dwelling-in-the-world and *hogar* as family/communitarian-fire). Throughout this thesis we have seen how, almost from its cradle, the Western epistemology has cultivated domineering patterns of conversing. However, there are a few details hidden behind this ordinary view that may help us to re-think the way we make our homes. Reviving the almost lost etymology of *bauen* and *hogar* may be a point of departure for real change—an emotional change.

Chapter 6

Re-localising the Communitarian Process of Homing in a Global Age

Almost a hundred years ago, the Scottish botanist Patrick Geddes left us an elegant and visionary suggestion for a particular manner of living in our current global world: think globally, act locally.[1] This idea has become very popular in the last 40 years, being a 'metaphorical' basis not only for a new way of urban planning (a main area in which Geddes applied his ecological vision), but also, for a new applied environmental ethics, ecological design, and green political and economic discourse and policy making. The essence of Geddes' suggestion can be understood as manner of living that implies a respectful and responsible awareness of one's influence in the ecology of the planet earth and the decision to participate in it mainly by acting in a socially and ecologically intimate and communitarian domain. I take this to be one of the founding perspectives of a new manner of homing in ecological terms, and therefore a basis for ecological design in the present era.

However, as commonly happens in our societies, the popularization of this term has become more a theoretical fashion than an applied phenomenon. From its beginning, I think, it has always been a 'marginal' idea that has not really influenced the mainstream of our eco-culture. In contrast, the mainstream manner of homing in our culture, to borrow a phrase from Wes Jackson, has resulted in the generation of a 'global village'[2] that has lost its connectivity with the intimacy of the local. Actually, during the last century, this global – modern and post-modern – manner of homing has dramatically increased in complexity. Two world wars, the global economic dependence on fossil fuel, the emergence of international terrorism, the creation of the United

[1] Although the term was not coined by Geddes, it has been attributed to him not only because it is implicit in his book *Cities in Evolution*, published in 1915, but also because his entire urban and botanical projects applied this perspective.
[2] Wes Jackson, *Becoming Native to this Place* (Counterpoint, 1996), 88.

Nations, the invention and expansion of jet-transport, the consolidation of the internet, and the economic and political empire of multinational corporations are, to list just a few, major globalising and homogenising events of the century that followed Geddes. We can doubtlessly say that we are the heirs and actors of a global age. We can also surely say today that almost nobody in the world is indifferent to, or can escape from, this global endeavour in general, and the power of the global economy (literally, a worldwide *managing* of the human process of *homing*) in particular. We are all experiencing different positive and negative consequences of globalization.

One of the most dangerous consequences of the current form of globalization, I believe, has been that we, the people of the world, have lost the capacity to coherently manage our own processes of homing. We depend on too many complex and external factors that transcend the intimacy of our daily lives. So, in sort of circular causality, a misplaced form of homing have triggered the emergence of a globalization without 'roots' that is increasingly unstable and complicated, which in turn negatively affects our capacity to meaningfully and effectively manage our everyday process of homing.

However, we cannot say that what Geddes' philosophy embraces—that is, a re-localization of homing—has been completely eradicated. On the contrary, as I will argue, it is precisely the effects of our global reality, of our '*uprootedness'*, that has created the basis for a new manner of homing at a communitarian and local level. Social, economic and environmentally harmful effects embedded in the current global organization are triggering thousands of initiatives around the world into creating more resilient, diverse and local processes of homing—that is, they are trying to act locally while thinking globally.

One of the main practical tasks that we have in our global age is to re-localise the communitarian process of homing. We have seen that community comes from the Latin *communis*, meaning 'fellowship of relationship and feelings'. But this fellowship happens while being embedded in place, or more accurately, *in a particular eco-cultural place*. And that particularity, which emerges from and is conserved through intimately and closely embodied-ecological relationships,

I will argue, is what we need to re-value, recover and cultivate through a loving disposition. It is essential for human existence and well-being; it is essential for the constitution of more sustainable forms of homing in a global age.

The following chapter therefore deals with the notion of local homing, or homing in community, in a global age. An important starting point though, is the understanding that a re-localization of the process of homing, as I shall argue, does not involve isolation from the rest of the world in which we exist. On the contrary, it defines a particular manner of homing-in-the-world constituted by uncountable others. It defines a particular form of feeling, understanding and participating in the global world. In other words, it seems that it is from the localization of homing that a particular interconnection between one's local community, a bioregion and a biosphere is generated. Or in other words, that we (should) participate in the global web of life and therefore give meaning to our lives mainly through the intimacy of our immediate communitarian existence.

Recovering a Sense of Homing: Spiritual, Socio-Economic and Environmental Practices

Following Satish Kumar, the human ecologist Alistair McIntosh argues that human community has three interconnected pillars: community with the 'Soul', community with the 'Society' and community with the 'Soil'—the three-in-one S's of community.[3] The first refers to the spiritual aspect of community, the second to the community between human beings, and the third is the community with the rest of Nature. As he clarifies, to name these aspects of community is only a matter of conceptualization.[4] Homing in community is ultimately one whole dynamic. Thus, following McIntosh, I will argue that there are spiritual, socio-economic and environmental reasons that make the re-localization of homing –that is, homing in community – an important practice. In more specific terms, my intention is to briefly contextualize how each of these pillars of community living is breaking down with the homogenization and *uprootedness* of homing, yet

[3] Alastair McIntosh, *Rekindling Community: Connecting People, Environment and Spirituality*, The Schumacher Briefings (Green Books for the Schumacher Society, 2008), 49.
[4] Ibid., 48.

with the ultimate purpose of presenting a few constitutive aspects of a general framework towards the re-localization of homing in community more sustainably. My intention is to present a general framework of acting locally while thinking globally, and one that may ultimately help us to design ecologically.

Community with the Soul - The Sacred Fireplace of Homing

It seems to me, that a coherent starting point to build an argument about the significance of re-localization of homing is to recall the vital importance of intimate relationships within a 'familiar' environment—namely, the core of humanness. In her book *The Need of Roots*, Simon Weil emphatically asserts that to belong to a particular place through intimate and close relationships is vital for human life as a whole.

> To be rooted is perhaps the most important and least recognised need of the human soul. It is one of the hardest to define. A human being has roots by virtue of his real, active and natural participation in the life of a community which preserves in living shape certain particular treasures of the past and certain particular expectation for the future. This participation is a natural one in the sense that it is automatically brought about by place, conditions of birth, professions and social surroundings. Every human being needs to have multiple roots. It is necessary for him to draw wellnigh the whole of his moral, intellectual and spiritual life by way of the environment of which he forms a natural part.[5]

As a natural phenomenon, to be rooted can be understood as a condition of existence for human beings. Recalling previous chapters, the mother-child relationship in love, biophilic intimate relations with the other beings, and the communitarian and relational social life are manners of conversing that generate and conserve roots. Among others, these eco-social relationships *are*, or constitute, the main roots of human beings.

In terms of homing, we could say that those basic conversations are the prime 'nest', the hearth (i.e., fireplace, *hogar*) of one's life—the centre of one's self-in-process, of one's cosmos, of one's ecological existence. Through the fireplace, one learns the art of *languag*ing, and develops different personal *emotioning* and larger emotional patterns (e.g., moods, personalities)—that is, one develops particular manners of conversing. In the intimacy of the fireplace, one hears

[5] Simone Weil, *The Need for Roots: Prelude to a Declaration of Duties towards Mankind* (Routledge, 2002), 43.

particular stories from the elders, parents, neighbours and other beings. These stories are ultimately conversations *about*-and-*with that* particular person, *that* family, *that* mountain, *that* river, *that* village, *that* city, etc. It is in the fireplace where a sense of oneself and a sense of place are developed as one integral aspect of the human soul—the phenomenological and conscious sense of being-in-the-world.

In other words, it is from the fireplace, from one's inner-self in intimate relationship with other beings, that a particular manner of relating with the rest of the world is defined, moment after moment. *Without these basic rooted conversations therefore, there is no process of homing whatsoever—no humanness.* By having roots one acquires the capacity, the bio-eco-cultural knowledge, to keep one's fireplace alive. This is probably why, in the Ancient Indo-European culture, the fireplace was sacred.

As a sacred, inner phenomenon, though articulated through ecological and socially intimate relationships, the cultivation of the fireplace must imply a kind of conversation that mainly takes place through the emotion of love—namely, through those conversations that make possible the establishment of recurrent and indefinite relationships of respect, cooperation and consensus. In other words, it is a manner of conversing in which one is treated as an authentic individual and that respects and encourages one's legitimate and unique generation and cultivation of roots. Briefly, it is through loving conversations that one becomes rooted.

This, in essence, is what I understand as the 'the community with the soul'—a sacred cultivation of an intimate fireplace, or, in other words, a localised human communitarian life with a particularly rooted cosmology and spirituality.

But the fireplace, as the core of homing, is not isolated. 'No man is an island, entire of itself; every man is a piece of [a]continent'[6], said the metaphysical poet John Donne. Homing, we have seen in the last chapter, implies *all* the conversations that one has moment after moment. A fireplace inevitably belongs to, and is constitutive of, a particular bio-cultural region and, ultimately a whole biosphere that is *dynamically* created by several other interacting fireplaces

[6] John Donne, *No Man is an Island* (Souvenir Press, 1988).

and beings. As Gary Snyder says, the fireplace is a 'mosaic within larger mosaics'.[7] He says that, as one grows bolder (e.g. during childhood and adolescence) there is an 'exploration of one's world outward from the firepit' and therefore, 'one's sense of the scale of a place expands as one learns the *region*'.[8] That is, through the course of one's personal process of homing, that intimate fireplace becomes interwoven within a larger network of ecological relationships—a bioregion, a biosphere. Briefly speaking, a coherent participation in larger ecosystems is fundamental to keeping vivid the communitarian fireplace, to ensure that it is not extinguished.

However, this 'exploration' outward to the world must not lose its connection to the fireplace—to one's inner-and-communitarian existence. We should 'be in touch with the centre', Schumacher suggests.[9] Only by being in touch with one's sacred fireplace, can the larger biosphere in which it takes place also be felt as sacred. This way, our sense of home is expanded, and our consciousness of the interdependence of human life in a biosphere, is constituted and cultivated. By keeping in touch with the fireplace, we connect our present life with our ontogeny (historical self), with our prime 'nest', and through it we cultivate a sense of belonging and meaning in the world. Spirituality, in fact, is a personal deep sense of belonging to a larger whole that nestles one's existence—it is a feeling in which the inner and the outer are not felt as dualistic forces but as part of one whole dynamics.

From a sacred and spiritual perspective of homing therefore, any culturally strict *separation* between the local and the global, wherever the boundaries might be established, becomes futile, and most importantly, dangerously unsustainable and painful.

However, I am not arguing here that we cannot make distinctions between different places and activities that constitute our process of homing. For example, to distinguish between 'the family-house', 'the city', 'the wild forest', 'the bioregion', 'the biosphere', or to make a difference between activities such as 'working', 'resting' and 'exploring' are human languaging

[7] Gary Snyder, "The Place, the Region, and the Commons," in *At Home on the Earth: Becoming Native to our Place: a Multicultural Anthology*, ed. David Landis Barnhill (1999: University of California Press, n.d.), 95.
[8] Ibid.
[9] Schumacher, Quoted in McIntosh, *Rekindling Community: Connecting People, Environment and Spirituality*, 61.

explanations that allow us to organize our lives in a human way. Distinguishing between different forms and scales of homing, such as a familiar house, a bioregion, a biosphere, etc, is an important Cognitive action. It facilitates us to develop a meaningful perspective of our process of homing.

Many authors have tried to explain the complexity of different 'layers' or 'scales' of homing from spiritual, ecological, physical, chemical, geographical, social and philosophical perspectives. The modern view, we have seen, tends to reduce this to two main realms, the intimacy of the private, and the shared public—the *oikos* and the *polis*. However, when we understand that each of these explanations presupposes a particular mode of conversing, or that they are created from a particular home/fire, we can conclude, from a phenomenological perspective, that each of them is unique and equally valid. That is, that any universal and transcendental definition of how a major biosphere is constituted and how an individual feels itself part of it, as happens in the modern reduction of home to the private, individualistic and sexist character of 'domesticity', is etymologically, ecologically and Cognitively misplaced.

The point view of the Austrian artist Friedensreich Hundertwasser seems to me an evocative example of *eco*-logical consciousness and spirituality. Hundertwasser believed that humans have five skins that constitute their personalities and their relational presence on the planet earth. These are 'Epidermis' - the biological skin, 'Clothes' - the manmade skin, 'Houses' - the protective skin, 'Identity' - the social skin, and 'Environment' - the global skin. Hundertwasser postulated that man can only attain a whole organic life through the understanding of each of these 'skins' and the necessary interconnection and interdependency between them.[10] This complexity gave to him a sensible interconnection between his inner individuality and his ecological existence. From Hundertwasser's 'five skins' of man, we can see how homing, as a process of conversing, is the ecological centre of each persons cosmos. It is from and through an ongoing, particular, legitimate and ecological process of homing that each one of us participates in the ecology of life, is at home on earth, and gives meaning to our existence.

[10] Pierre Restany, *Hundertwasser: The Painter-king with the Five Skins* (Taschen, 2001).

The Spirituality of Ecology and the Spirituality of Transcendence

Every process of homing is creative. Through homing, as an embodied-and-placed event, we participate in and generate the world *from within*, moment after moment. In that creation therefore we inevitably always leave a footprint. Thus, a major ethical question, and one which is central to this chapter, is *how*, in what way, do we decide to create and cultivate our ongoing process of homing in the ecosystems in which we exist? (Or, how can we coherently keep our fireplaces alive? How can we cultivate the roots of our lives?) What kind of footprint do we choose to leave behind through our process of homing?

Although every human being has his own path of homing-in-the-world, I would like to, following Wendell Berry[11], metaphorically evoke two general human ways of homing which I will call the path-builder and the 'road-builder'.[12] Strictly speaking, these two ways are relational and happen in the real world: they are the constant result of human conversations. However, they imply two radically different human *manners* of conversing, two different manners of designing, and two different manners of understanding, creating and conserving our homes. There are a few concepts in which we can see the different implications of these two ways of homing as follows:

Rhythm: A first differentiation between a path and a road is the rhythm of the movement that they imply. A path-builder is coherently coupled with the pulse of Nature. A path-builder moves, or even strolls, following the pace of his breath, the pulse of his heart, the feeling of his emotioning, and the length of his footstep. He moves by being conditioned by the flow of the weather, the structure of the seasons, and the intensity of light. The journey along a path 'invites loitering'[13]. There must always be time to take a rest. It is a rhythm constricted by wondering and detailed observation. A road-builder, by contrast, pretends to be indifferent to the flow and conditions of both his embodied existence and the rest of Nature. The road, as our modern 'highways', must be fast—actually, the faster, the better. It seems to be constrained only by the constant dictation of the clock, thereby neglecting any natural rhythm. There is no time to rest, to wonder, to wander,

[11] See Wendell Berry, "A Native Hill," in *At Home on the Earth: Becoming Native to our Place: a Multicultural Anthology*, ed. David Landis Barnhill (1999: University of California Press, n.d.), 45.

[12] Because I am metaphorically using the notion of path and road, I have chosen the verb to build. As we have seen in the last chapter, building here should be understood as dwelling-in-the world, being this the main sense of old German *Buan.*

[13] O. F. Bollnow, "Lived-Space," trans. Dominic Gerlach, *Philosophy Today* 5, no. 1/4 (1961): 31-39.

to observe. There is no pulse, but only steadily moving-forward, always towards a clear predefined endpoint.

The Present - the Past - the Future: The journey of the path-builder is lived within the drift of the ever- moving present. He goes step-by-step, carefully feeling the path and deciding how he should move on. He is loitering with his ever-moving present. But to do that, the path-builder knows that he has to look back. He learns from the wisdom of the past, from elder walkers, from ancient stories, from other animals that have co-dwelled through the same path. The path-builder is conscious of the eco-cultural ontogeny of the path in which he dwells. From this present, which is aware of its past, the means towards a desirable future become fundamental. The future is just a meaningful and changeable point seen and defined from the present. It is not a fixed condition, a final state. In contrast, the journey of the road-maker seems to be essentially defined by an endpoint, thereby being unable to enjoy the beauty of his present existence. With no consultation, he will probably always take the shortest, the fastest, and the most effective way to reach it. The road-builder does not have time to stop, and therefore, to learn from his past. He knows almost nothing of his eco-cultural history as it was actually lived, thereby committing the same mistakes over and over again, and inattentively, and why not violently, overlooking other inhabitants that have already dwelled in the same place, and by extension, also overlooking those that are homing, and will dwell, nearby.

Scale: The rhythm and the mode of homing in the present ineluctably occur in a place. In the case of the path-builder, there is an intimate conversation with the other builders who make a particular place; they co-build (i.e., co-dwell) their paths. The path therefore, adopts a particular form shaped by the diversity of its human and non-human builders. The path, for instance, 'leads thoughtfully around a tree'[14] because the tree is seen as a legitimate dweller. The path-builder sees the path as a *constituent* of a place. The path-builder is consciously *in-placed,* and therefore he is aware of the limits and conditions of it. The road, by contrast, is considered to be just 'a means from one place to another'[15]. The road-builder therefore is a '*placeless*'[16] person, and

[14] Ibid.
[15] Ibid.

because of this he thinks that there are no ecological conditions for his road to make progress and reach its destiny. The road-builder goes straight, and when confronting a tree, he just 'tears it away', because the tree is not considered a legitimate dweller. Wendell Berry, commenting on a 1797 construction of a road in Kentucky, U.S, clearly explains the Euro-American (or 'road-builder') relationship to the landscape, in contrast to the American Indian way of homing through paths.

> A path is little more that a habit that comes with knowledge of place. It is a sort of ritual of familiarity. As a form, it is a form of contact with a known landscape. It is not destructive. It is the perfect adaptation, through experience and familiarity, of movement to place; it obeys the natural contours; such obstacles as it meets it goes around, A road, on the other hand, even the most primitive road, embodies a resistance against the landscape… its *wish* is to avoid contact with the landscape; it seeks so far as possible to go over the country, rather than through it…[17]

The Bird's Eye View: Through the process of homing we become self-conscious beings, and as such, among other things, we develop the capacity to see the world in which we live as an object, as if it *were* separated from us. For instance, we usually speak about 'the city',' the region', and 'the world' as total unities, in more abstract terms. This capacity therefore, allows us to understand the notion of home, our participatory presence on earth, in total, global terms—namely, *to see the big picture*. Also, and most importantly, as we become observers of our creative dwelling-in-the-world, of our footprints, we become capable of ethically and practically evaluating them and giving them a particular meaning.

The path, as a spiritual disposition that goes 'through' the landscape, cultivates close ecological relationships with *those* particular trees, *that* particular pasture gate, *that* particular hut, and *that* couple of condors that nest in the cliff on the other side of the river.[18] The familiar path sometimes takes the walker to a steep rock, the summit of the valley, allowing him to look over it, getting 'a sense of the whole of it'. It is possible to see the magnitude of the valley as a composite-unit: the village, the network of paths and roads, the movement of the cars, and the river and its mouth in the far horizon of the sea becomes a whole, and why not, a *home*. Yet it is

[16] Berry, "A Native Hill," 48.
[17] Ibid., 49.
[18] See Berry, "A Native Hill."

still a wholeness that emerges from within the valley. It is perceived from the path. It is a view full of details, intimately connected with 'particular, concrete events, noticeable for what [William James] called their eachness'[19]. Briefly, this view emerges from, and is part of, a spirituality that is embedded in intimate relationships with diverse beings.

In contrast, the road-builder, as a spiritual disposition that goes 'over' the landscape, establishes a separation from it. His process of homing wants to transcend the landscape. At the end of 1960s, this was what was done. The NASA project reached into space and took a picture of those blue-and-white patterns that outline the surface of the planet earth, floating on an immense, vacuum darkness. This picture of the earth has probably become the most popular in modern history. It is usually said that it has had profound effects on human consciousness. One of the most important of these, it is declared, is the emergence of an environmental consciousness, of a feeling that the earth has limits and that our existence is part of them. In this sense, the picture of the earth has become a main icon for environmental movements in the last few decades.[20] However, paradoxically, this consciousness emerges from an image that is the most graphic trophy of a manner of living based on domination and transcendence. It is the human triumph of the Platonic desire to go vertically upwards to reach heaven, to become immortal, to leave Nature, to see the big picture but *from outside*, and, from it, to contemplate and to manipulate life on Earth. This image constructs a whole, or a home, without details, without intimate relationships. It escapes from the 'eachness' of those ecological events. It is a view of a human spirituality that negates its embodied-ecological diversity and becomes, by contrast, monotheist—*uni*-versal.

In the end the road-builder, by negating his inexorable embodied and *in*-placed existence, becomes up-rooted. 'Uprootedness is by far the most dangerous malady to which human societies are exposed', declares Weil. And she warns: If uprootedness continues, 'it can easily be realized that, from one day to another, the harm may become irreparable'.[21] In our Western-global culture however, we have created a behavioural pattern, a system of roads, that is up-rooting us. After centuries of 'uprootedness', our culture is becoming spiritually lost, disconnected from its

[19] James Hillman, *City and Soul* (Spring Publications, Inc., 2006), 44.
[20] Sallie McFague, *Super, Natural Christians: How We Should Love Nature* (SCM Press, 1997), 31.
[21] Weil, *The Need for Roots: Prelude to a Declaration of Duties towards Mankind*, 47, 48.

essence—the sacredness of the fireplace. Our eco-culture then becomes *nostalgic*—etymologically, to suffer from 'severe homesickness'.

However, once again, as creator of the world in which we live through conversation, in our hands rests a trigger for emotional change that brings back our ability to cultivate the sacredness of the fireplace, to become coherently reconnected with our embodied existence and with the ecology of life.

Community with the Society – Community Self-reliance in Socio-Economic Terms

Recalling previous chapters, the human individual is biologically a social/ecological being. I have argued in this thesis that it is mainly through the emotioning of loving, or more accurately, through loving, intimate conversations, that we can conserve the human mode of living. Therefore, the most essential aspect of the re-localization of homing is that, through it, socially and ecologically biophilic conversations can emerge and be cultivated. These conversations are vital for the constitution of a community. In Assadourian's words, 'as individuals in a community interact, work together, and trade favours, a level of trust and feelings of reciprocity form. This is what makes a community a community rather than just people living near each other'.[22] Thus, the task is to understand and generate an economics – i.e., management of the process of homing – that recognises and encourages the localization of homing—namely, an intimately *co*-operative or socio-ecological economics. Ultimately, we have to re-value and co-create 'an economics as if people mattered', and through it, to find 'the actual size of man', demands Fritz Schumacher.[23] Today, a process of re-localization however, can only be understood within the context of (or why not as a reaction to) globalization.[24]

[22] Erik Assadourian, "Engaging Communities for a Sustainable World," in *State of the World 2008: Innovations for a Sustainable Economy: a Worldwatch Institute Report on Progress Toward a Sustainable Society* (Earthscan, 2008), 154.
[23] Schumacher, quoted in McIntosh, *Rekindling Community: Connecting People, Environment and Spirituality*, 32.
[24] David J. Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States* (MIT Press, 2009).

Global Economy and the Breakdown of Homing in Localized Community

Globalization may have brought positive things to many people around the world, but, as Michael Shuman argues, local communities have been one of the losers of globalization.[25] As said earlier, the main negative effect of Globalization, in terms of the development and conservation of communitarian homing, is that people have lost the capacity to produce for themselves, becoming reliant on a single, highly unstable and complex economic system.[26] Being reliant on global factors that are socially and environmentally unsustainable has had serious social consequences in a local domain, such as, breakdown in family structures and extended communal groups[27], the jeopardizing of socio-ecological dynamics in larger local communities and neighbourhoods[28]and the loss of administrative power in local governments[29].

Although these are widespread patterns in the global age, it is particularly in the poorer sectors where communities are really suffering. Neo-liberalism has generated enormous wealth, but, as Laszlo comments, 'its benefits regard ever fewer people and marginalise ever more'.[30] For instance, in the so called 'third world', there has been a massive migration from traditional villages and communities to urban slums, usually looking for better opportunities after being unable to maintain their traditional communal lives due to external global pressures. Urban Slums, like those that I have seen all my life in Latin America, can hardly be called 'developing' places, as neo-liberal and liberal economists like to call them.

But, the breakdown of social systems is not alone. As the ecologist Ricardo Rozzi asserts, the well-being of human community and of other biological species go hand in hand.[31] In order to show the deterioration of socio-ecological systems due to an unethical economy in a global scale,

[25] Michael Shuman, *Going local: Creating Self-reliant Communities in a Global Age* (Routledge, 2000).
[26] R. J. Douthwaite, *Short Circuit: Strengthening Local Economies for Security in an Unstable World* (Green Books, Lilliput Press, 1996), 31.
[27] Ervin Laszlo, *The Chaos Point: The World at the Crossroads* (Piatkus Books Ltda, 2006), 24,25.
[28] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*; Hugh Barton, ed., *Sustainable Communities: The Potential for Eco-Neighbourhoods* (Earthscan, 2000).
[29] Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*.
[30] Laszlo, *The Chaos Point: The World at the Crossroads*, 16.
[31] Ricardo Rozzi, "Biodiversity and Social Well-being: The Case of South America," in *Encyclopedia of Life Support Systems (EOLSS)* (UNESCO-EOLSS, 2003), http://www.eolss.net/.

Rozzi gives the example of the shrimp[32] industry in Ecuador—the largest producer in the world since 1983. Because of this, there has been a massive conversion from coastal Mangroves to shrimp pools, generating serious environmental problems in the entire ecosystem, such as an increase of sedimentation, loss of nutrients, and contamination and the diversion of the course of streams and rivers. But also, it has caused serious social problems such as 'limiting the access of local communities to coastal natural resources', 'diminishing the quality of life for fisher communities by diminishing the populations and diversity of species that are traditionally gathered in these ecosystems', and increasing the difference between the rich and the poor people of the zone. This, Rozzi argues, not only shows the interdependence between social and environmental well-being, but also illustrates how this internationally exported delicatessen, facilitated by the global economy, 'goes hand in hand with the starvation of local people who inhabit the coastal region of this country'.[33] This story of socio-ecological communal degradation has happened, and still happens, in uncountable cases in South America, and in many other poor regions of the world. These are examples that ultimately show the antisocial and anti-ecological practices of an ignorant economy, as it were detached of any ethical concern. It is an economy managed by what Wendell Berry calls the 'corporate mind'.

> This is a mind that is compound and abstract, materialistic, reductionist, greedy, and radically utilitarian…It comes to its work equipped with factual knowledge and perhaps also with knowledge skilfully counterfeited, but without recourse to any of those knowledge that enable us to deal appropriately with mystery or with human limits. It has no humbling knowledge. The corporate mind is arrogantly ignorant by definition.[34]

From a critical perspective, Jonathan Harris explains that in the current global economy, there are three 'holy' concepts that are considered essential for the 'improvement of human welfare': 'economic growth', 'free trade', and 'technological progress'.[35] During the last few decades

[32] *Penaeus stylirostris and P. vannamei*
[33] Rozzi, "Biodiversity and Social Well-being: The Case of South America."
[34] Wendell Berry, "The Way of Ignorance," in *The Virtues of Ignorance: Complexity, Sustainability, and the Limits of Knowledge*, ed. Bill Vitek and Wes Jackson (The University Press of Kentucky, 2008), 41-42.
[35] Jonathan M. Harris, ed., *Rethinking Sustainability: Power, Knowledge, and Institutions* (University of Michigan Press, 2003), 117.

however, the three of them have been challenged by the emergent discipline of ecological economics which, among other things, is trying to reinstall the important value of close eco-social practices.[36] Although I cannot do justice to these complex terms in this short space, it is important to have a general notion of them and to see how they have generally affected the socio-ecological economics of local communities.

Endless growing: One of the things that we have learned from physics is that every system that grows endlessly collapses—that is the case, for instance, of cancer cells. In order to operate however, the neo-capitalistic economy is designed to constantly maximise energy and resources.[37] The main 'paradox' is as follows: our always-growing economy, based on maximisation of consumption, does not respect, both conceptually and practically, the ecological and physical limits of the natural world on which it depends.[38] All living beings consume, so to propose 'stop consuming' is nonsensical.[39] But, if we really have some environmental and social concerns, it is necessary to challenge the assumption that an ever-growing consumption is required to create socio-economical stability. Simply, endless economic growth, in terms of consumerism, must stop. It is socially and environmentally unviable. In practice however, the environmental and social tribute to maintain the every-growing economy demonstrates the very low value that neo-liberal and liberal economists assign to human local community and its inhabitants.[40]

The endless growth needed to keep the stability of an economy based on consumption, historically introduced and promoted by the richest capitalist countries of the world, seems to be socially 'undesirable', not only in the poorer communities around the world that suffer the most with the constant exploitation of their natural resources and human rights, but also in

---

[36] See Harris, *Rethinking Sustainability: Power, Knowledge, and Institutions*; Herman E. Daly, *Beyond Growth: The Economics of Sustainable Development* (Beacon Press, 1997); Herman E. Daly and Joshua C. Farley, *Ecological Economics: Principles and Applications* (Island Press, 2004).
[37] Robert Costanza, Joshua Farley, and Ida Kubiszewski, "Adapting Institutions for Life in a Full World," in *State of the World 2010: Transforming Cultures: From Consumerism to Sustainability* (W. W. Norton and Company, 2010).
[38] Daly, *Beyond growth*; Kirkpatrick Sale, *Human Scale* (Secker & Warburg, 1980), 69; Thomas Princen, *Treading Softly: Paths to Ecological Order* (MIT Press, 2010), 32.
[39] Princen, *Treading Softly: Paths to Ecological Order*, 34.
[40] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 37.

communities within these richest countries. For instance, as Constanza et al. comment, in contrast to the huge growth of GDP (Gross Domestic Product) in U.S in the last 35 years, the GPI (Genuine Progress Indicator), which is based on the economic measure of people's well-being, had its peak in 1975.[41] Thus, it is time to ask deep questions that really change the basis of our global economy. As Princen suggests, we need to ask ourselves 'how can we consume in a way that does not undermine our economy?'[42] In other words, what is the kind of growing that not only values and respects the core of social life – the fireplace – and the rest of nature, but also has as its main task, its maintenance and restoration? The revaluation and re-localization of *the basis* of social and ecological life, seems to me, to be the first step. From there, from the administration of our own fireplaces, we might start an economy that encourages endless growth of socio-ecological consciousness rather than of consumption of energy and resources.

Free Trade: In practice, free trade is essentially an international application of an unregulated market system.[43] After a hundred years of free markets, we are increasingly experiencing a global homogenization of cultures and societies. However in an unregulated and ethically free market, this homogenization, apparently inevitable in a super interconnected world, seems to be only conceptual or at most, ideological. In practice, it has rather created a highly unequal and exploitive system that corrupts the socio-ecological 'roots' of our lives. International deregulation and free markets have allowed large corporations of wealthy countries – or more appropriately, of few individuals – to move their productive operations to poorer countries and communities where environmental and social constraints are almost non-existent, wages are low, and therefore, profit is much higher.[44] This has generated a huge polarization of the economy. Here, communities around the world (particularly in poorer and developing countries) have been destroyed for the benefit of richer communities and the profit of multinational corporations – which have great control due to non-restriction in demanding economical incentives to profit-

[41] John Talberth, Clifford Cobb, and Noah Slattery, The Genuine Progress Indicator 2006: A Tool for Sustainable Development (Oakland, CA: Redefining Progress, 2007), in Costanza, Farley, and Kubiszewski, "Adapting Institutions for Life in a Full World."
[42] Princen, *Treading Softly: Paths to Ecological Order*, 34.
[43] Harris, *Rethinking Sustainability: Power, Knowledge, and Institutions*, 117.
[44] Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, 24.

focused results.[45] Free trade has also had negative impacts in developed countries. For instance, there has been a dramatic emergence of *ghost towns* in the United States in the last few decades due to the recurrent mobilization of technological companies to States that offer less environmental and social regulation.[46] The loss of millions of people's homes around the world after the financial crises in 2008 is just another illustration of a totally unethical system. Ultimately, communities and local Governments have become simple servants of distant multinational companies that do not care about locally social and environmental issues. And finally 'consumers' around the world have become disconnected from their own bioregions, thereby losing all sense of the source of the products they consume – of the carrying capacity of the socio-ecological ecosystems from which goods and services are produced and ultimately brought to their 'tables'. In this collapsed social scenario, neither NAFTA (North American Free Trade Agreement), nor GATT (General Agreement on Tariff and Trade), signed by almost every country in the world, nor its successor WTO (World Trade Organization) have any intention of standardizing and developing *serious* socio-environmental protection.[47] It might be worth asking therefore, what is the sort of global relationship that we should encourage between ourselves? Where can we generate a real change that shapes a more ethical global interaction? 'Free trade' must not imply assuming that we are *freed* from being responsible for our actions. The task is to generate socio-ecological systems and forms of global interconnection between them that not only ensure mutual supervision of actions, but most importantly, that nourish people's desire to ethically supervise their own actions This, I think, is mainly learnt in the intimacy of the fireplace.

Technological Progress: The third basis of a global capitalistic economy, and that is a clear heritage of the modern epistemology, is ensuring the 'free' progress of technology. This is paramount for the endless expansion of industrialization and consumption, and the increase of efficiency. However, the main problem of efficient technology in a free market and ever-growing economy is that it is mainly focused on economic values – i.e., maximisation of profit – thereby

[45] Kōzō Mayumi, *The Origins of Ecological Economics: the Bioeconomics of Georgescu-Roegen* (Routledge, 2001), 102.
[46] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*.
[47] Harris, *Rethinking Sustainability: Power, Knowledge, and Institutions*, 119.

treating environmental depletion and social breakdown as 'externalities'.[48] All of this becomes a total oxymoron for the conservation of life and social well-being in a finite planet. In a free-trade Market, governed by the greed of invisible consumers, technology makes progress in the direction that the market demands. If there is any serious problem in social or environmental terms, it is assumed that technological progress will overcome it following new demands from consumers. However, when the famous 'externalities' become 'central' issues – e.g., global warming, increase of worldwide poverty, oil-based wars, etc – the effectiveness of technological progress governed by the 'invisible hand' of consumers, becomes a matter of serious questioning.[49] In a system like this, technology becomes displaced, uncontrollable, and therefore, without ethical order. Nobody seems to be responsible for technological advance and its applications. Thus, economy, described by Shuman as the 'science of efficiency' – 'the efficiency of consumption, production and distribution'[50] – and the necessary technology to run it, loses its original purpose of *facilitating* societies to 'reach the goals it really cares about'. Economy, this 'indispensable *tool* for the strengthening of communities'[51] becomes just the opposite—a sort of extinguisher of the fireplace—an inefficient administration of home.

From Competition to Cooperative and Consensual Community Self-Reliance

E. F. Schumacher, reacting to the earlier consequences of globalization, invited us 'to overcome egocentredness by joining with other people in a common task; and to bring forth the goods and services needed for a becoming existence'.[52] He defines a new form of economy characterised by what he calls 'small is beautiful': an economic process in 'a direction that shall lead it back to the real needs of man, and that also means: *to the actual size of man*'[53] In its deepest meaning, we can understand these words as a call to appreciate and facilitate a change in the human emotioning (he calls it 'metaphysical change') from a competitive, aggressive and individualistic manner of homing mainly based on the emotions of greed and arrogance, towards a cooperative

[48] Princen, *Treading Softly: Paths to Ecological Order*.
[49] Ibid.; Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, chap. 1.
[50] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 37.
[51] Ibid.
[52] E. F. Schumacher, *Small is Beautiful* (Abacus, 1974), 52.
[53] Ibid., 155.

and consensual manner of homing based on social (i.e. loving) emotioning. As Laszlo suggests, it is a change from 'extensive growth' encapsulated in the three 'C's' of '*conquest, colonization and consumption'*, to 'intensive growth', based on the radically different C's: '*connection, communication and consciousness*'.[54] We have seen that the fireplace constitutes the centre of every human's homing-in-the-world and it is from there that we establish our 'connections' with other beings, that we 'communicate' (or converse) in a certain manner which, if articulated through loving, may trigger the emergence of a more 'natural consciousness'—i.e., the awareness of the interdependence between the self, the social and the ecological existence of humanness—or what Laszlo calls 'the holos consciousness'.[55]

Schumacher's perspective can be considered as a 'turning-point' towards a re-localization of communitarian existence. A central concept for this, and one that is implicit in Schumacher's account and that is common in later thinkers of socio-ecological economics, is 'community self-reliance'.[56]

> [Self-reliance] suggests personal responsibility, respect for others, and harmony with nature. And the addition of the word 'community' to self-reliance underscores that the ultimate objective is a social and caring one'.[57]

I would like to briefly deal with two basic and interdependent aspects of 'community self reliance':

Individual's Direct Democratic Participation: In a massive and complex socio-economic system like globalization, the participation of the individual in the decision of important social and environmental local issues has become conditioned by the huge control that external institutions, such as public corporations, have over them. However, when communities manage to organise themselves and to achieve a more self-reliant socioeconomic organization, the community members have the opportunity to *actively and directly* participate in the decision-making processes. As Sale comments, 'the human mind is limited, the human voice is finite; the number

[54] Laszlo, *The Chaos Point: The World at the Crossroads*, 40-42.
[55] Ibid., 42.
[56] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 46.
[57] Ibid.

of people who can be gathered together in one place is restricted, the time and attention they are capable of giving is bounded'.[58] The local arena – e.g. families, small communities, neighbourhoods, local governments, small businesses, communal networks, and cooperatives—is the only domain in which these human limits can be respected and put into practice. On the contrary, in larger institutions, such as public business corporations, national states, or international agreements, the participation of the individual becomes less active and, if partly democratic, *only representative*. I am not negating the value of larger representative democracies. They are absolutely necessary for the achievement of respectful and harmonic order in a global scale. However, in line with Sale I am saying that 'direct democracy' is the only 'true democracy'. It is an essential human necessity and can only happen in a local, social domain.[59] Moreover, it is the basis for the constitution of global democracy. Thus, a major call for a global policy making is how to articulate direct democracy in the local domain with the representative democracy in global realms.

Localism in itself however, does not necessarily mean direct democratic participation. Critics of localism could rightly argue that local institutions can also be affected by nepotism, sexism and racism.[60] This again raises the major importance of our emotioning in the process of homing both in local and global scales. Democracy, in its most basic sense, involves respecting and listening to the point of view of others. That is why, I believe, that *true democracy is a loving phenomenon*.[61] 'The others' in a loving relationship are not people, but *clearly identified persons*. And in local, direct democracy people become persons. Direct democracy is the basis for social inclusiveness, mutual listening and consideration of diverse points of view. It is only at this scale of participation that the individual becomes *truly responsible* for his decisions and actions. There are no 'invisible hands' in a small democratic institution.

Therefore, direct democratic participation and inclusiveness of all the members of a community is the social root for the constitution of self-reliant community and any attempt to become more

[58] Sale, *Human Scale*, 493.
[59] Ibid.
[60] Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, 100.
[61] See Humberto Maturana, *Emociones y Lenguaje en Educación y Política* (J. C. Sáez Editor, 2005).

ecologically sustainable. As Randolph Hester asserts, socio-ecological community actions can only take place when rooted in deep democracy, and vice versa. Thus he asserts that

> ecological democracy is government by the people emphasizing direct, hands-on involvement. Actions are guided by understanding natural processes and social relationships within our locality and the larger environmental context. This causes us to creatively reassess individual needs, happiness and long-term community good in the places we inhabit.[62]

Community Self-reliance on Basic Goods: Dependency on necessities from outside communities has become a real risk due to the instability of the global world.[63] Many eco-social crises, such as oil-wars, economic depressions, financial crises or terrorist attacks, have been the main news headlines in the last few years. According to Prince, it is now time for a deep economical change: from a 'consumer economy' to a 'producer economy'[64]; from passive people who believe that everything must get mined in order to be consumed and then frittered away, to people that become more 'self-producers', 'self-governed', generating what they need, and being in charge of their own waste.[65] Recalling the notion of homing, it is about becoming aware that *we are in charge of the world that we produce*, *of the world in which we live* through conversations.

In a self-reliant community, there is the intention and an ever-learning capability of producing those things that can be produced locally.[66] Operationally, community self-reliance is about creating shorter economic 'circuits'.[67] There are many positive features of local self-reliance in a global age. First, it minimizes community dependence on external factors. Community members

---

[62] Randolph T. Hester, *Design for Ecological Democracy*, 1st ed. (The MIT Press, 2006), 4.
[63] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 113.
[64] Douthwaite calls this new system "a peasant economy", in Douthwaite, *Short Circuit: Strengthening Local Economies for Security in an Unstable World*, 31.
[65] Princen, *Treading Softly: Paths to Ecological Order*, 97-99.
[66] In general economic terms, this is usually called 'import substitution'. As Hess explains, import substitution was implemented in many developing countries from 1930s to 1970s under the idea of generating domestic industries that substituted those imported goods traditionally imported from abroad. This policy was particularly applied in socialist governments, as happened in Argentina and Chile. However, after some period of success, due to many economical and social factors, in the case of Argentina and Chile for instance, a complete neo-liberal international system replaced import substitution from 1980s. Import substitution became almost completely forgotten and seen as something that really threatens social and economical stability. However, reacting from the negative effects of globalization, the notion of import substitution has re-emerged, but this time, from a local perspective: a 'site here to sell here policy'. Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, 72-78. This re-emergence of import substitution is called by Shuman LOIS (Locally Owned Import-Substitution). Shuman, *Going local: Creating Self-reliant Communities in a Global Age*.
[67] Douthwaite, *Short Circuit: Strengthening Local Economies for Security in an Unstable World*.

become less vulnerable to things out of their control.[68] Second, in a global economy we are less aware of both the conditions of production of the products we consume[69]and the management of the waste they generate. Even if we want to live in a sustainable way in this global scenario, it is practicably impossible to control the whole 'life-cycle' of any product. In a self-reliant community, in contrast, this scenario changes completely. Feedback loops become internal and much easier to understand and control.[70] Production, consumption, re-production (e.g., reusing and recycling) and waste of goods become much more intimate, thereby constituting a more disciplined whole. Responsibilities are more clearly designated, failures are easier identified. Third, socio-ecological 'externalities' are minimized or even eliminated.[71] Everything that influences the economic system is considered part of it. 'A guaranteed way to ensure that a car does not pollute is to stick the exhaust into the passenger section. Similarly, a community committed to self-reliance will be mindful not to foul its own nest', comments Shuman.[72] Fourth, a short self-reliant system enhances prosperity and efficiency. A central argument for this is that a self-reliant local economy tends to have a greater 'economic multiplier effect'. Production and consumption of goods and management of their waste inside a community generates more recirculation of money within locally-owned businesses and institutions in contrast to money spent in non-local and multinational corporations.[73] Fifth, a local, self-reliant community economic system goes beyond the satisfaction of basic goods. It enhances a lively social, interactive and dynamic system. As Douthwaite asserts, humans are only fully human when we are involved with each other, and the majority of us find happiness most easily through collective achievement.[74] 'If we join our neighbours in the adventure of building a local community that

[68] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 47.
[69] Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, 107.
[70] Johan Galtung, "Self-reliance: Concepts, Practice and Rationale," in *Self-Reliance: A Strategy for Development*, ed. Johan Galtung and Preiswerk O'Brien R. (IDS, 1980).
[71] Ibid.; Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 49.
[72] Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 49.
[73] Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, 87; Michael Shuman, "Relocalizing Business," in *State of the World 2010: Transforming Cultures: From Consumerism to Sustainability* (W. W. Norton and Company, 2010), 114.
[74] Douthwaite, *Short Circuit: Strengthening Local Economies for Security in an Unstable World*.

supplies and supports us all, true happiness, deep joy, is waiting to be found'.[75] Finally, a local self-reliant system implies that social and environmental capital comes from within the community or the local environment. Therefore, it implicitly generates the opportunity for other communities, from close and distant places, to recover their social and environmental capital and initiate their own process of localization and self-reliance.

It would be easy to attack the idea of community self-reliance by arguing that many things, such as computers, microchips, etc, cannot be produced in a local domain. Although entirely true, this is not the point. The idea of community self-reliance is not about generating a totally closed system.[76] Every community must have semi-permeable boundaries in economic, social and environmental terms. This is absolutely necessary in a global age. As McIntosh says, a community must allow 'the in and out of breath' otherwise people would be 'trapped', 'sucked dry' and 'suffocated'. In this case, the community would become a 'cult'.[77] In this context, community self-reliance is about increasing people's control over, direct democratic participation in, and responsibilities for, their own economies where possible and practical; And also, to encourage an ethical view to participate in a global network of relationships.

Community with the Soil – Bioregionalism: an Eco-ethical mode of Relating to the Rest of Nature

Climate change is not a theoretical idea anymore. Almost every human being on earth has already experienced its effects to some extent. At a governmental level, there is also a general recognition of it and an insipient understanding of its complex and almost unpredictably devastating consequences. The 2007 United Nations Framework Convention on Climate Change and the recent (although disappointing) 2009 version known as Copenhagen 15 are examples of the awareness and seriousness of climate change on a global scale.

---

[75] Douthwaite, quoted in Rob Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience* (Green Books, 2008), 68.
[76] Douthwaite, *Short Circuit: Strengthening Local Economies for Security in an Unstable World*, 8; Shuman, *Going local: Creating Self-reliant Communities in a Global Age*, 49; Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 68.
[77] McIntosh, *Rekindling Community: Connecting People, Environment and Spirituality*, 34.

Climate change however would probably be less significant if the global society were not so dependent on fossil fuels and if it were not struggling with the challenge of peak oil. Our dependency on fossil fuels is unquestionable. Most of the current technological goods and services, such as food production monocultures, global transport, key advances in Western medicine, plastic, etc, come directly from or are derivatives of oil, and have facilitated the emergence of the global age. In this dependent scenario, and considering the (potentially) devastating consequences of climate change, the issue of peak oil becomes really important. The association for the Study of Peak Oil (ASPO), in a 2006 base case, claimed that peak oil occurred in 2005. If deep water, heavy oils and natural gas are included to the equation, then it estimates oil and gas peak in 2010. In February 2007 the US Government Accountability Office (GAO) presented a report estimating peak oil between 2008 and the next few decades.[78] As the price of oil is steadily rising due to an ever increasing demand and an already falling supply, looking for an alternative path is now urgent. As Wahl comments, 'many of the strategic answers to the problems posed by peak oil, will lead towards more local and community-based patterns of production and consumption'.[79]

Climate change and peak oil, have become *the* environmental topics of the moment, and several authors are using it as the main argument for change.[80] Its particularity is that it is a global phenomenon. However, it is important to stress that it is not the only socio-ecological crisis. In a global, myopic and mono-cultural society, large-scale issues, and particularly those which affect the people and nations that have had the economic control, are usually considered as the most important and relevant ones. However, as I have previously discussed, the eco-cultural crisis, seen from a more pluralistic perspective, is a conjunction of uncountable problems that have been affecting millions of people and ecosystems in the world for many decades and in many different ways, even before peak oil and climate change were 'discovered'. From my perspective, climate

[78] In, Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 27-30; Pat Murphy, *Plan C: Community Survival Strategies for Peak Oil and Climate Change* (New Society Publishers, 2008).
[79] Daniel C. Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability" (University of Dundee, 2006), 439.
[80] See, for instance Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*; Murphy, *Plan C: Community Survival Strategies for Peak Oil and Climate Change*; Keith Farnish, *Time's up!: an Uncivilized Solution to a Global Crisis* (Green Books, 2009); David W. Orr, *Down to the Wire: Confronting Climate Collapse* (Oxford University Press, 2009).

change and peak oil are just the ultimate global manifestations of a really serious and complex network of eco-cultural crises that, as a systemic phenomenon, in the end affects everyone and everything. 'Losers' become more losers and the so called 'winners' realize they are losers too. In other words, climate change and peak oil are the 'last drop' of a deep system of socio-ecological crises, and maybe even Nature's last call, emphatically signalling that we must change. The exact date of peak oil is not what truly matters. The thing that matters is that it is a reality which is part of an already uncontrollable network of environmental crises that are forcing us into deep changes in the way we relate to the rest of Nature. They are signs that the global age must be understood differently, that a post-oil society must be created now, and that a re-localization of our relation to the environment is 'inevitable'.

> When peak oil is dropped into the mix, localization is no longer a choice – it is the inevitable direction in which we are moving, one we can do nothing about, other than to decide whether we want to embrace its possibilities or cling to what we perceive that we are about to lose. The Oil Age can be seen as a 200-year period which enabled us to move away from a primarily local focus and then to move back to it again.[81]

Bioregionalism: an Ethical Change – a Change of Scale

From an environmental point of view, and considering the complex network of environmental crises, the re- localization of homing can be considered as a response that is based on a 're-emergent' ethical and practical way of relating to the rest of Nature. It is a disposition that recognizes that size matters, when a more sustainable manner of living is sought; that challenges the unsustainable and arrogant human aggrandisement over the conditions of the rest of Nature; and that re-values the importance of smaller and closer socio-ecological relations that enhance human ecological knowledge and responsibility. Ultimately, it is about the understanding that 'our relation to the natural world takes place in a *place*, and it must be grounded in information and experience', Peter Snyder claims.[82] As Berg and Dasmann say,

> Living-in-place means following the necessities and pleasures of life as they are uniquely presented by a particular site, and evolving ways to ensure long-term occupancy of that site. A society which practices living-in-place keeps a balance with its region of support through links

[81] Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 70.
[82] Snyder, "The Place, the Region, and the Commons," 99.

> between human lives, other things, and the process of the planet – seasons, weather, water cycles – as revealed by the place itself.[83]

'Living-in- place' is the essence of the bottom-up movement of bioregionalism, in which Snyder, Berg and Dasmann have been important promoters. But, bioregionalism does not only imply 'living-in-place' but also, *through it*—it is an applied environmental ethics that responds to the call of our environmental crises. As Wahl asserts, bioregionalism tries to facilitate a socio-ecological change that would guide people to responsibly 'protect and restore the environment on a local level'.[84]

'Living-in-place' or relating to the natural environment at a 'local level' is mainly constricted by what bioregionalism has defined as 'bioregion'. According to Kirkpatrick Sale, bioregion literally means 'life-territory'. It is 'a place defined by its life forms, its topography and its biota, rather than by human dictates'.[85] Berg and Dasmann go a step further and propose that bioregion 'refers both to a geographical terrain and a terrain of consciousness – to a place and the ideas that have developed about how to live in that place'.[86] However, each of these authors recognises that a bioregion, and its boundaries, is 'best described by the people who have lived *within it*, through human recognition of the realities of living-in-place'.[87] A bioregion is (or should be) eco-culturally defined from the 'internal' perspective of its particular inhabitants.[88] This internal perspective, following our understanding of homing, is the perspective of their 'fireplace'. It is *from* the intimate ecological and social relationships (i.e., a communitarian fireplace) that a bioregion is defined, not from a hierarchical or external political perspective. And it is through this process that the people of a communitarian fireplace can become consciously and ethically embedded within the defined bioregion. Also, as an ongoing intimate socio-ecological process, a bioregion should not be understood as an abstract territorial map with clear, fixed and close

---

[83] Berg and Dasmann, quoted in Doug Aberley, "Interpreting Bio-regionalism: A Story from Many Voices," in *Bioregionalism*, ed. Michael V. McGinnis (Routledge, 1999), 23.
[84] Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 502-503.
[85] Kirkpatrick Sale, *Dwellers in the Land: The Bioregional Vision* (New Society Publishers, 1991), 43.
[86] Berg and Dasmann , quoted in Aberley, "Interpreting Bio-regionalism: A Story from Many Voices," 23.
[87] Berg and Dasmann, quoted in Ibid. My emphasis.
[88] Aberley, "Interpreting Bio-regionalism: A Story from Many Voices."

boundaries. In contrast, the boundaries of a bioregion are essentially relational, dynamic and permeable.

Reacting to the eco-cultural crises that we are currently facing, mainly due to a human ideological dislocation from the rest of Nature, promoters of bioregionalism propose that in order to 'live-in-place', a process of 're-inhabitation' of the landscape is indisputable.[89] Re-inhabitation refers to a learning process in which human communities become aware of the eco-systemic relationships of their bioregion and acquire the knowledge to live coupled with it in a sustainable way.

Thus, the process of *re-inhabitating* bioregions appears as a fundamental aspect of the re-localization community. It allows human communities to become consciously, ethically and practically embedded in the local, natural world (or bioregion) and to become ecologically 'rooted'. In other words, *the re-inhabitation of bioregions allows the people of a community to ecologically cultivate their fireplace by being coherently coupled with the regional environment in which they are inexorably embedded*.

Also, a bioregional manner of living eventually allows a human community to become more resilient, an important eco-biological term that can also be applied to human systems. Walker et al. define resilience as 'the capacity of a system to absorb disturbance and reorganise while undergoing change, so as to still retain essentially the same function, structure, identity and feedbacks'.[90] The enhancement of community resilience appears as a vital benefit in such a complex and interconnected global age, and a coherent community coupling with its bioregion gives the basic tools for the enhancement of its resilience.

There are three important practices that are necessary to become bio-regionally rooted and resilient in a communitarian domain that I would like to briefly discuss. They are: the acquisition

[89] Peter Berg and Raymond Dasmann, "Reinhabiting California," *The Ecologist* 7, no. 10 (n.d.): 399-401; Sale, *Dwellers in the Land: The Bioregional Vision*; Aberley, "Interpreting Bio-regionalism: A Story from Many Voices."; Mitchell Thomashow, "Toward a Cosmopolitan Bioregionalism," in *Bioregionalism*, ed. Michael V. McGinnis (Routledge, 1999); Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability."

[90] Walker et al, quoted in Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 54.

and cultivation of eco-cultural knowledge; direct control and responsibility of socio-ecological feedbacks; and enhancement of eco-cultural diversity.

Eco-cultural Knowledge of the Bioregion: The bioregionalism movement recognizes the interdependency between cultural knowledge and environmental knowledge. As Snyder comments, from a bioregional and traditional perspective, 'the flora and the fauna and the landforms are *part of culture'*.[91] In this sense, Sale speaks about two interdependent processes that he calls 'knowing the land' and 'learning the lore'.[92] As we have seen, beside the enormous contribution of Modern science-and-technology to our current knowledge of Nature and the development of technology, one of its negative consequences is that people in the Western-global society have become passive consumers of knowledge and technology rather than active producers through place-based experiences. Knowledge becomes theoretical, general, and dislocated from the particular in which a human being exists. It is quite common to find, for instance, that a globalized child from the Western-European world probably knows more about the far away African lion and elephant that he saw on TV than about the kingfisher that inhabits the river near home. A bioregional form of homing by contrast *also* enhances the experience of intimate relationships with the local environment, its climate conditions, its animals, its plants, and its topography. This knowledge becomes invaluable for any self-reliant community. It informs appropriate manners of homing—that is, e.g., to correctly design, situate, built, and choose the material of a house; to know which kind of soils are best for tomatoes and when to set them out; to know and respect the nesting place and season of birds; to know the usual biological corridors of major mammals; to know the energy potential of the region and produce of local, green energy systems; to discover medicinal plants and develop preventive and remedial health local capacity; to sustainably manage the nearby forest; to keep the good condition of the water system of the valley, and so on. Also, place-based knowledge gives to the community the ecological capacity and ethical concern to choose what kind of 'external' scientific knowledge

[91] Snyder, "The Place, the Region, and the Commons," 97.
[92] Sale, *Dwellers in the Land: The Bioregional Vision*, 44-46.

and technology can be applied in the bioregion without jeopardizing its natural balance.[93] Furthermore, it raises the capacity to successfully introduce programs of ecological restoration by using and coupling species, ecological process, cultural traditions, etc that are particular to that place. Finally, it gives a sense of belonging and participation in the ecological dynamics of the region—it forms identity.

Interwoven with this experienced, place-based knowledge of the land is the community learning from the cultural tradition that has inhabited the bioregion—'learning the lore'. Bioregionalism invites us to re-value the human history of our bioregions; to respect and listen to the wisdom of the elder; to 'discover' and congruently re-implement, in the present, vernacular techniques that were coherently coupled with the bioregion; to identify, assess and learn from the errors of the past; to include every inhabitant of the bioregion and invite him to tell his story; to conserve the important value of folkloric ceremonies, etc.

Also, bioregional knowledge is the necessary root that allows human beings to understand the complexity of the intimate, of the fireplace, in a conceptual and global form. From a bioregional knowledge, a human being is able to see the bigger picture—namely, to participate in a global world *from a point of view*, and to understand that the biosphere is constituted by many interconnected and interdependent bioregions defined by other 'fire-pits' – a sort of ecological inter-subjectivity – that also have to deal with everyday life issues.

The interweaving of these two kinds of knowledge constitutes a much more holistic manner of relating to a bioregion. It generates an informed bedrock for an ecologically human process of homing.

Direct Control and Responsibility of Socio-Ecological Systemic Feedbacks: One of the essences of a community application of bioregional principles is a change of scale. This involves changes in the understanding of environmental ethics and the human participation and intervention in ecological systems.

[93] Bruce Evan Goldstein, "Combining Science and Place-Based Knowledge: Pragmatic and Visionary Approaches to Bioregional Understanding," in *Bioregionalism*, ed. Michael V. McGinnis (Routledge, 1999); Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 511.

As I said earlier, in such a complex global world the development and application of a coherent environmental ethics recurrently crashes due to the complexity of the system in which we participate. I have also argued that a truly environmental ethics is a human disposition that emerges from a loving manner of conversing which is mainly shaped through intimate, close relationships—i.e., homing-in-love. Now, the application of that ethics becomes much easier and more coherent and 'practical'[94] when our environmental *actions* are mainly limited by, and immersed in, a particular bioregion—namely, the same one from which a particular environmental ethic can emerge. The emergence and application of ethics becomes a coherent whole embedded in a particular bio-cultural region. It is on a bioregional scale that the socio-ecological medium can truly inform us, and allow us to act with more confidence.

> If there is any scale at which ecological consciousness can be developed, at which citizens can see themselves as being the cause for the environmental effect, it is at the regional level.[95]

At a bioregional level of ecological participation people become fully aware of the responsibility of their actions. Also they have many more real options to control the effects of their actions. It becomes easier to identify any negative environmental damage and to generate alternative actions that would solve the problem, since the cause and effect would tend to be much closer. In Orr's words, at a bioregional level the knowledge and control of the landscape's dynamics are coupled with the 'eyes to acres' ratio necessary to understand its complexity.[96]

In contrast, for the last five years, for example, the people of Chile have been discussing the necessity of building several mega hydroelectric projects in one of the most pristine and untouched places of the Patagonia Region and probably in the entire world. A project of this scale, needless to say, would dramatically change the natural balance of the region. The project also involves the setting up of more than two thousand kilometres of electric towers to reach the far city of Santiago, thereby affecting the ecology of Natural Reserves and the life of a large number of rural and indigenous communities that will probably not receive the positive effects of

---

[94] Sale, *Dwellers in the Land: The Bioregional Vision*, 53.
[95] Ibid., 54.
[96] David W. Orr, *Ecological Literacy: Education and the Transition to a Postmodern World* (SUNY Press, 1992), 35-36.

the project.[97] In line with Kirkpatrick Sale, I would argue that the problem is not about building the project and seeing how to apply our environmental and social ethical concerns to it. The problem is that we should have never started this conversation in the first instance. It is too complex. It escapes any human capacity to truly understand its environmental, social and economic consequences. Governmental authorities, the producers of the project, and the consumers of its electricity will never be able to realistically assess their social and ecological impact. In contrast, at a local, bioregional scale, the management of natural resources becomes much less complex and the ecosystem feedbacks much more clear. As Hopkins explains, 'tightening feedback loops will have beneficial results, allowing us to bring the consequences of our actions closer to home, rather than being so far from our awareness that they do not even register'.[98]

Respect and Enhancement of Bioregional Diversity: On a planetary scale, biological diversity (i.e. the number of species, the number of members of a species, and the redundancy and complexity of ecological interaction in a system) is fundamental to the resilience of the planet earth. The same applies to every ecological system at any scale.[99] In a human community embedded in its particular bioregion, the notion of diversity can be applied in more holistic terms. Persons become conscious of the interdependence between biological, social and economic diversity, and therefore intentionally apply it in practice. For instance, enhancement in local business diversity would not only generate more work flexibility, but would also decentralise human pressure on different animals and ecosystems, thereby conserving (and why not restoring) the diversity of the bioregion. Consequently a biologically diverse bioregion would offer much more social and economic possibilities of action than one with low diversity and unstable resilience in ecological terms.

Also, maintenance of a natural level of diversity in a bioregion can be successful only when the bioregion is treated as a particular system. Problems, designs and actions may be unique for each

[97] See "Patagonia Chilena ¡Sin Represas!", n.d., http://www.patagoniasinrepresas.cl/final/index.php.
[98] Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 56-57.
[99] Garry Peterson, Craig R. Allen, and C. S. Holling, "Ecological Resilience, Biodiversity, and Scale," in *Foundations of Ecological Resilience*, ed. Lance H. Gunderson, Craig R. Allen, and C. S. Holling (Island Press, 2009).

bioregion. Therefore, respect for the particular living and non-living components of a bioregion become fundamental to the maintenance of bioregional diversity. But this respect may only emerge when people have enough ecological knowledge of that region, and those people are the ones that live in that particular bioregion.

Finally, bioregional knowledge, direct control of, and responsibility for, systemic feedbacks, and respect for bioregional and global diversity can only emerge from the intimacy of human interaction with other natural living and non-living components. That is, *they are part and parcel of a biophilic human disposition that can emerge and be cultivated only in a recurrent, everyday, experience*. Through this intimate biophilic interaction that mainly happens at an individual and communitarian level, a bioregion becomes consciously part of one's home, of one's fireplace. In Doug Peacock's words, 'what we call "wilderness" was to the Indian a homeland, "abiding loveliness" in Salish or Piegan'.[100] As Nicholsen suggests, ' "abiding loveliness" speaks both to the sense of continuity over time that the home place provides and also to the ability to see and experience that place as saturated with the love that has circulated within it, a love that flows not only from person to person but between other beings as well'.[101]

***

The task of this chapter has been to show the indispensable value of the re-localization of homing. The value of local or in-placed communities in spiritual, socio- economic and environmental terms is fundamental for the understanding of human sustainability in a global age. This re-localization process is not about closing windows and disconnecting people from the rest of the world, but about understanding and nurturing a manner of living in a global age without undermining the bedrock of our humanness: a *socio-ecological*, or *loving*, form of conversing/homing—that is, the cultivation of a communitarian or intimate fireplace interwoven in a particular bioregion, and from which an ethical manner of participating in a global domain is defined.

[100] Doug Peacock, quoted in Shierry Weber Nicholsen, *The Love of Nature and the End of the World: The Unspoken Dimensions of Environmental Concern* (MIT Press, 2003), 36.
[101] Ibid.

Ultimately, the interconnection between spiritual, socio-economic and environmental dimensions of a localized community in a global age is a state of consciousness grounded in experience—an ethical disposition that values the importance of what it means to be native, and makes us live accordingly.

The next chapter consists of the ethnographic reports of three Western-European ecovillages that I conducted over a period of four months of field-research. The main intention was to see how they have developed and applied an ecological consciousness, and particularly, to examine how the notion of ecological design is inserted in this process. The words of Christopher Mare, a member of the Global Ecovillage Network and the Village Design Institute, provides a thoughtful opening to this ethnography, where he clearly articulates ecological consciousness, the process of homing, and ecological design:

> eco-poesies, [literally, home-making] may be the very heart of any sustainable strategy and this may be the ultimate purpose for the ecovillage designer: home as the location of the hearth; home as the place where the children learn to discriminate and socialize; home as the situationing where families learn to love; home as the re-inhabitation of the natural world; home as a container of dwelling; home as a provider of meaning and identity; home as the nurturing womb from which to bring forth the next species of humanity; home as a place I've never seen, yet achingly long to return to… This home is not a house; it's an ecovillage – a home within a home within a home.[102]

[102] Mare, quoted in Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 451.

Chapter 7

Sustainable Communities and Ecological Design: Ethnographic Conversations with three Western-European Ecovillages

Introduction to the Field Research

Ecovillages: Contemporary Initiatives of Localizing Homing Sustainably

In the last two chapters I have suggested why, in the current global age, the re-localization of homing is not only an option but a necessity. I have argued that it is precisely in the intimacy of socio-ecological relationships – i.e. in a loving-communitarian domain – where we, human beings, not only give meaning to our lives, but also where the foundation for a sustainable living in a global age can be continuously generated and cultivated. Nostalgia, namely *homesickness* – triggered by the cultivation of an aggressive and supercilious mode of conversing – is probably the most powerful reason why there are many people and movements re-localizing their process of homing in our Western-European culture. This change is a change of emotions, a reflective process that is re-valuing how we can live in cooperation with each other and with the rest of Nature.

In practical terms, this has encouraged the appearance of communitarian initiatives focused on generating more sustainable modes of homing/conversing. In general, sociologists have referred to these initiatives as a new wave of 'intentional communities'—mainly, localist, in-place movements that have, from the bottom-up, played a significant role in questioning the modern and post-modern malaises by proposing alternative socio-ecological forms of homing.[1]

[1] See for instance Barry Shenker, *Intentional Communities: Ideology and Alienation in Communal Societies* (Routledge & Kegan Paul, 1986); Corinne McLaughlin and Gordon Davidson, *Builders of the Dawn: Community Lifestyles in a Changing World* (Book Pub. Co., 1990); Robert C. Schehr, *Dynamic Utopia: Establishing Intentional Communities as a New Social Movement* (Bergin & Garvey, 1997); David J. Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States* (MIT Press, 2009).

Intentional communities have existed for thousands of years in our culture. Pitagoras' Homakoeion[2], the Roman Palestine and Christian communities during the first century A.D, the Christian monasteries of the twelfth and thirteenth centuries[3], the kibbutzim that arose at the beginning of the twentieth century, the communalism movements (e.g., 'hippies' and 'back to the land' communes) of 1960s and 1970s, are some examples. It is not my concern here to analyse how, or if, different waves of intentional communities in the Western-European culture are connected. However, although every wave of intentional communities has emerged from its own unique eco-cultural context, it seems that there is an implicit connection between them in terms of proposing, or even dreaming, alternative paths of living from the mainstream society of which they are part—they are, in a way, reactive movements. In this sense, although to some extent connected to the environmental concerns of the communitarian movements of the 1970s, a new wave of intentional communities has been emerging in the Western-European culture during the last few decades. This time, as many of the supporters of these intentional communities comment, a prime organizing (or reactive) element is the growing and collective awareness of the eco-social crises we are facing, resulting in alternative processes of localization within the current context of a global age.[4] Thus, these initiatives can be broadly referred to as 'sustainably oriented communities'. The vision of Judy and Michael Corbett, based on more than twenty years of experience in the creation and cultivation of the community 'Village Home', is a good example. 'A sustainable community', they propose, 'is one that allows its inhabitants to live in a way that

[2] Jonathan Dawson, *Ecovillages: New Frontiers for Sustainability*, Schumacher Briefings (Green Books, 2006), 15.
[3] Schehr, *Dynamic Utopia: Establishing Intentional Communities as a New Social Movement*, 26.
[4] See for instance, Kathryn McCamant, Charles Durrett, and Ellen Hertzman, *Cohousing: A Contemporary Approach to Housing Ourselves* (Habitat Press, 1988), 9; Nigel Taylor, "Ecovillages: Dream and Reality," in *Sustainable Communities: The Potential for Eco-Neighbourhoods*, ed. Hugh Barton (Earthscan, 2000), 19; Karen Svensson, "What is an Ecovillage?," in *Ecovillage Living: Restoring the Earth and her People*, ed. Hildur Jackson and Karen Svensson (Green Books, 2002), 10; Diana Leafe Christian, *Creating a Life Together: Practical Tools to Grow: Ecovillages and Intentional Communities* (New Society Publishers, 2003), xvii; Mark Roseland, *Toward Sustainable Communities: Resources for Citizens and Their Governments* (New Society Publishers, 2005), 2; Chris ScottHanson and Kelly ScottHanson, *The Cohousing Handbook: Building a Place for Community* (New Society Publishers, 2005), 1; Dawson, *Ecovillages: New Frontiers for Sustainability*, 17; Daniel C. Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability" (University of Dundee, 2006), 434; Rob Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience* (Green Books, 2008), chap. 1,4; Hess, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*, 49.

does not damage the environment or consume non-renewable resources... [and that at the same time] supports the realization of human potential'.[5]

Among other forms of sustainable communities such as the Co-housing model[6] and more recently Transition Towns[7], the communitarian movement of Ecovillages seems to me to be one of the most potent forms of sustainably oriented communities in the Western-European culture. Now these ideas are being considered by mainstream society as good examples of sustainable living. In the words of the Ecovillage researcher Hildur Jackson, 'today, there is a fertile ground for the expansion of sustainable lifestyles. Where the ecovillage concept previously may have seemed like the rather marginal venture of a happy few, it is now gaining momentum and being embraced by an increasing number of people the world over. We are gradually approaching the advent of the mainstream eco-village, a form of sustainable community, which harmonizes with modern requirements and lifestyles, while at the same [time] reflecting our interconnectedness with all of life'.[8]

Many definitions of ecovillages have emerged in the last twenty years. Two of the most quoted are as follows:

---

[5] Judy and Michael Corbett, quoted in Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 435.

[6] Cohousing (originally, 'bofaellesskaber', meaning, '*living communities*') started out from people's dissatisfaction with the individualistic form of housing in Denmark during the 1960s. Usually, they are small neighbourhood constituted by 12 to 40 dwelling unities, organized around principles of non-hierarchical decision making process, direct participation in community planning process, resident management through collaborative work-groups, private homes and common facilities (such as common kitchen, meeting and play rooms, laundry facilities, etc), recurrent shared meals. Cohousing is popular in Scandinavian countries and in the United States and Canada. By 2005 more than 300 cohousing projects had been completed in Denmark and about 65 in the United States and hundreds of new groups were in a planning stage. For more information, see McCamant, Durrett, and Hertzman, *Cohousing: A Contemporary Approach to Housing Ourselves*; ScottHanson and ScottHanson, *The Cohousing Handbook: Building a Place for Community*.

[7] Reacting form the challenges of peak oil, Transitions Towns (or also Transition Initiative) are, in Hopkins' words, 'an emerging and evolving approach to community-level sustainability'. The essence of this movement relies on the collaborative initiative of the Inhabitants of existing villages or towns (or even local institutions) who start a 'transition' process from a oil dependant socio-economic organization to the generation of more resilient ways of living in economical, social and environmental terms by, for instance, developing local food production and networks, local energy supplies, local transport, etc. Launched by Rob Hopkins five years ago in the English town of Totnes, this initiative has grown internationally. By March 2011 there were 737 transition initiatives ("Transition Network", March 2011, http://www.transitionnetwork.org/.)For more Information see Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*; Shaun Chamberlin, *The Transition Timeline: For a Local, Resilient Future* (Green Books, 2009); "Transition Network."

[8] Hildur Jackson, "Ecovillage Design Patterns," in *Ecovillage Living: Restoring the Earth and her People*, ed. Hildur Jackson and Karen Svensson (Green Books, 2002), 14.

> Ecovillages are human-scale , full featured settlements in which human activities are harmlessly integrated into the natural world in a way that is supportive of healthy human development, and which can be successfully continued into indefinite future'.[9]

> Ecovillages are communities of people who strive to lead a sustainable lifestyle in harmony with each other, other living beings and the Earth. Their purpose is to combine a social-cultural environment with a low-impact lifestyle. As a new societal structure, the ecovillage goes beyond today's dichotomy of urban versus rural settlements: it represents a widely application model for the planning and reorganization of human settlements in the 21st Century.[10]

However, an ultimate definition of ecovillages would be 'unduly reductive' in a movement that is essentially proposing a more localized, socio-ecological, and dynamic form of homing.[11] In Ross Jackson words, 'the ideal ecovillage does not exist. It is a work in progress—a fundamental component of the new paradigm, where much is yet to be learned'.[12]

This has been clearly understood and promoted by the Global Ecovillage Network (GEN) – an umbrella organization founded in 1995, and now integrating hundreds of ecovillages and other sustainable communities around the world to exchange their ideas and experiences in order to enhance their capacity to live sustainably in a communitarian domain.[13] There are two ideas that make GEN (or the ecovillage movement as a whole) so propitious in terms of generating real ecological changes: (1) it is mainly constituted by grass-root, in-place communities – each one reacting to the current eco-cultural crises by generating and cultivating an alternative path of living *from their own and unique perspectives*—from their particular embodied-ecological realities, experiences and learning -by-doing; and (2) their understanding of sustainable living is mainly based on the harmony that flourishes when social, ecological and spiritual aspects of

[9] Robert and Diane Gilman, quoted in Christian, *Creating a Life Together: Practical Tools to Grow: Ecovillages and Intentional Communities*, xvi; Also in, Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 447; Dawson, *Ecovillages: New Frontiers for Sustainability*, 13.
[10] Svensson, "What is an Ecovillage?," 10.
[11] Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 446.
[12] Ross Jackson, "The Ecovillage Movement," *Permaculture Magazine*, no. 40 (2004): 26.
[13] "The Global Ecovillage Network - gen.ecovillage.org", March 2011, http://gen.ecovillage.org/.

community living in a global age are interconnected through cooperative relationships.[14] (See Chapter 6).

So, a sensible way to study ecovillages would be not so much by conducting a general analysis of them as a single social movement, but by carefully examining *particular* ecovillages in order to see how the members of a community realize their communitarian process of homing in ecological, social, economic and spiritual terms.

Also, since a great part of the global eco-social crises comes from our Western-European culture, studying particular ecovillages that are emerging *from* our currently unsustainable culture is of great significance. Studying these ecovillages may enhance and accelerate the process of establishing more sustainably oriented communities.

The Practice of Ecological Design in Ecovillages: a Place-based Approach

In this thesis I have argued that ecological design implies being aware that we are socio-ecological – i.e. loving – beings, and act accordingly. I have also argued that, by re-valuing the importance of our intimate socio-ecological conversations, a more sustainable form of homing in a global age would spontaneously emerge and be conserved. As Van der Ryn and Cowan state, 'sustainable solutions grow from place…[so] ecological design requires us to once again engage our places, their joys and idiosyncrasies, their winds and water, their pulse and history'.[15] In contrast, Western designers in general tend to focus their efforts on the creation of standardized artefacts and systems that, they assume, will fit everywhere and everyone. Even if this is well-intentioned, it is one of the sources of our unsustainable culture; a form of designing based on a cultural belief in universal truths that underestimate the particular. Leaving behind our tendency to create universal models to solve our problems is a key element in the understanding and practice of ecological design.

Several researchers now assert that ecovillage members tend to be aware of this issue and therefore are leading a new form of design. For instance, by examining several community-level designs and applications of technology, Assadourian claims that ecovillages are 'modelling

[14] See Svensson, "What is an Ecovillage?," 10-12.
[15] Sim Van der Ryn and Stuart Cowan, *Ecological Design*, 1st ed. (Island Press, 1996), 59.

sustainability' but from a place-based approach.[16] More generally, Wahl suggests that 'the ecovillage design approach is holistic, integrative, and aims for symbiotic, synergistic and salutogenic solutions that support the flourishing of the whole community and its wider context—the biosphere'.[17]

If we agree that a main facet of sustainability occurs in the development and conservation of sustainable communities, then the ways that eco-villagers design their socio-ecological systems might be very informative in the generation of a truly pluralistic and holistic vision of ecological design. Otherwise, the study of ecological design would be incomplete and incoherent if there is no careful examination of ecologically designed systems in particular ecovillages and other sustainably oriented communities.

But, how can we conduct a study of this kind coherently? In this thesis I have asserted that design is a form of conversing, and that ecological design is a form of conversing in love—co-designing in love. Most of the studies of design however are unaware of this. There is a lack of research that examines ecological design in ecovillages as a form of conversing—that is, by paying attention to the emotional basis of design and by examining how design influences the emotioning of participants—Or, more generally, by examining ecological designs in an ecovillage as part and parcel of a major form of the conversing – or homing – of its members. Doing this, I believe, is the most appropriate way to ultimately understand the role and practice of ecological design in the establishment and conservation of sustainable communities.

Main Research Question and Three Case Studies

In consideration of these points, I decided to conduct a short ethnographic study of three Western-European ecovillages: Svanholm Collective, Denmark; Sieben Linden Ecovillage, Germany; Keuruu Ecovillage, Finland.

---

[16] Erik Assadourian, "Engaging Communities for a Sustainable World," in *State of the World 2008: Innovations for a Sustainable Economy: a Worldwatch Institute Report on Progress Toward a Sustainable Society* (Earthscan, 2008), 152.

[17] Wahl, "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability," 447.

The main – or generic – research question that informed this study was: *How does ecological design take place, or what is its role, in the holistic process of generating and conserving a sustainable community?*

This question can be reformulated into two interdependent research aims: *(1) to explore how ecovillages are consciously integrating the ecological, social, economical and spiritual aspects of community, thereby leading them to live more sustainably; and (2) to explore how the practice of ecological design both emerges from and influences the socio-eco-spiritual dynamics (or conversations) present in ecovillages.*

However, the form adopted to deal with this generic question was to examine more specific – or topical – research questions that emerged from the interweaving of pre-field research and the particular socio-ecological aspects of each of these communities, as perceived and experienced during the field research. This allowed me to ensure a place-based approach to the understanding of specific socio-ecological dynamics and the ecologically designed systems of each of the communities studied. The main topical questions are specified in the introduction to each case study.

Also, this field research is only a starting point for the examination of this generic question and therefore there is no intention to propose a definite answer, but rather to suggest potential approaches of the role of ecological design in our eco-cultural process of re-localizing home in a global age.

In summary, the setting for this field research was European sustainable communities; the sub-setting was Western-European ecovillages; the case studies were the three ecovillages listed above; and the sub-case studies were specific socio-ecological conversations and ecologically designed systems that were part of these communities.

Main Research Methods

The selection of the case of studies was determined by the following community characteristics: They (1) were situated in Western-European countries; (2) were official members of GEN-Europe; (3) were open to receive researchers for at least a month; (4) accepted volunteer work;

(5) constitute a diverse pool examples in terms of community age, and number of community members.

The field research was conducted over a total of four months: Svanholm Collective, from mid May to mid June, 2009; Keuruu Ecovillage, from mid June to mid July, 2009; and Sieben Linden, from mid October to mid November, 2009.

Additionally, in order to prepare for the field-research, I participated in a four-week programme entitled 'Ecovillage Design Education (EDE) – Training for Trainers', at the Findhorn Foundation, Scotland, in Oct-Nov 2007. The course covered four constitutive organizing principles of ecovillages – social, economic, ecological and worldview dimensions –, thereby supplying a general context for ecological design in the constitution and conservation of ecovillages, as understood by the ecovillage movement – and Gaia Education[18] – itself. The course also provided a background for my understanding of the general motivation, challenges and difficulties present in the establishment and conservation of ecovillages in Europe. In addition, I also participated in the GEN-Europe annual general assembly, Keuruu, July 2009, which was attended by more that 150 people from groups related to GEN-Europe. Furthermore, I also participated in a one-week course on Dragon Dreaming (DD), facilitated by the Australian ecological economist John Croft. DD is a method based on systemic sciences, and aims to facilitate individuals in successfully building community projects for sustainability. All this critically helped me to elaborate a more accurate pool of research questions; to direct and contextualize my observations during the field-research; and to meet a diverse pool of people involved in the ecovillage movement.

In this thesis, I have proposed that every human activity is a conversation. At the Centre for the Study of Natural Design, we refer to Natural Conversations as those activities that are holistically and ecologically oriented. Thus, in this research I studied those natural conversations which were present in different communities through my participation in these natural conversations. So, the natural conversations in which I participated were both the case studies and the main

[18] EDE is run by Gaia Education and Global Ecovillage Network, and is an official contribution to the United Nations Decade of Edcation for Sustainable Development 2005-2014

methodological tool used in this research. The main methods used were ethnographic tools for the conducting of qualitative research. These tools included:

Participant-Observation: I undertook participant observation every single day during the three months of field-research. The main form of participant-observation adopted was by means of volunteer works, such as participating in the communitarian food system – e.g. food production, cooking, cleaning, eating, composting –, ecological restoration programmes, maintenance of communal infrastructure – e.g. building and cleaning, etc. I also participated in several social events, such as community parties and celebrations, community decision making meetings, language courses, sports, etc. This was the most valuable method used, since it allowed me to directly experience the daily activities of the community members.[19]

Informal Interviews: During participant-observation I had close relationships with the community members which allowed me to conduct many informal interviews. The idea was to ask open questions and encourage them to speak more about those things relevant to the research.[20]

Field-notes: During these activities I made many field-notes. Every evening, I then read and organized my field-notes in order to construct more analytic notes, and make early memos, statements and conclusions.[21] This allowed me to appropriately situate my observations on key community aspects and to lead the field-research in a dynamic and plastic way.

Semi-Structured Interviews: After approximately 10 days of field research in each case study, I identified key informants who were interviewed using a semi-structured pool of questions. These interviews were mostly focused on the history of the community and on certain socio-ecological and economical aspects of community organization.

Photography, Drawing and In-field Diagrams: Almost every activity undertaken during the field research was photographed. Many drawings and diagrams were also made during the visit in

[19] Martyn Hammersley and Paul Atkinson, *Ethnography: Principles in Practice*, Second. (Routledge, 1995); see Harvey Russell Bernard, *Research Methods in Anthropology: Qualitative and Quantitative Approaches*, 4th ed. (Rowman Altamira, 2006); Harry F. Wolcott, *Ethnography: A Way of Seeing* (Rowman Altamira, 1999).
[20] Hammersley and Atkinson, *Ethnography: Principles in Practice*, 139-156.
[21] Bernard, *Research Methods in Anthropology: Qualitative and Quantitative Approaches*; Hammersley and Atkinson, *Ethnography: Principles in Practice*, chap. 7.

order to describe socio-ecological structures and processes. This provided me with valuable visual data for later analysis.

Community documents, journal articles, newspapers, etc. were collected before and during the field research and used as a source of data.

The analysis of data started during the field research. The main method of data analysis was by triangulation – i.e. approaching data from different perspectives and with different hypotheses in mind. Comparing data allowed me to validate the data as collected, to identified community patterns and variables, and to generate analytical concepts.[22] Relating different concepts allowed me to construct categories and sub-categories of analysis.[23] For the analysis of data I used the free qualitative analysis software Weft QDA.[24]

In what follows I discuss each case study in independent ethnographic reports. Further details of the research method are explained in each case study. No comparison is made between the case studies, since they are treated as independent socio-ecological systems. In order to attend to the main research question of this field research, this chapter finishes with a short commentary on the relationship between ecological design and ecovillages.

[22] W. Penn Handwerker, *Quick Ethnography* (Altamira Press, 2001), 244-249.
[23] Hammersley and Atkinson, *Ethnography: Principles in Practice*, 213.
[24] "Weft QDA," *http://www.pressure.to/qda/*, n.d.

Case Study 1: Svanholm Ecovillage: The Cooperative Process of Cultivating a Resilient Community

1. Introduction to the Case Study

1.1. The Celebration

I wake up and it is a beautiful and sunny Saturday in spring. Since early morning, not only have the sounds of birds interrupted my sleep, but also the sound of quite a lot of unexpected movement and some excited children running from one place to the other. I look out through my window. Surprisingly, there are a lot of people coming from different directions to the central road of the community where a twenty-five-meters-long table has been set up. In a few minutes, the whole community, including myself and other surprised guests, are seated around the table happily sharing a complete breakfast prepared by the Kitchen Group. After an hour of joyful conversation, in a sort of ritual, a participant commemorates the celebration by taking a picture of the whole community. It is Svanholm Community's 31st birthday.

Although I do not see any birthday-cake, the community members have a gift for Svanholm. Today, a new multifaceted playground project for Svanholm's children will be constructed next to the road and the communal kitchen at the heart of the community. In a few minutes, most of the people are divided into organized workgroups, each one in charge of the construction of some aspect of the new place. The work starts. All kind of tools, from simple spades to huge tractors, begin to be used in the hands of adults and children. Nobody is inactive. The people who work in the forest are bringing in huge tree trunks and chopping them up to build a super designed structure of nets made from ropes. Others are repairing some old slides and placing them on the face of an artificial four-meter hill. Still others are building a trampoline, planting flowers, creating a sun-field, installing a doll's house, playing in the doll's house, installing hammocks, sculpting a huge trunk to make a bench, gathering big rocks to create a sculpture, making a beach-volley pitch, and preparing food for lunch and chopping meat for a barbecue late in the evening. It is just the beginning of a two-day event of great fun, cooperation, organization and production. (See figure 7.1)

The project had been initiated a few months before. Some parents had the dream of building a playground for the children of Svanholm. They presented their idea in the communal meeting where it was approved by consensus and communal funding was designated for its production. It was designed by subgroups which then organized the workgroups for its construction. In a few days, most of the people had voluntarily signed up to some workgroup and had met up to internally organize their tasks. Everything had already been planned before that Saturday and in two days the playground was finished as originally conceived.

The success of this project is not fortuitous, but deeply determined by the organization of Svanholm community as a whole. For 31 years, they have successfully co-designed several socio-ecological systems – such as their own economic system, work organization, green-technology production system, organic food system, and consensual democracy – that have become the structure of their ongoing process of homing. Thus, the specific research questions guiding this study were the following: What is the organization of Svanholm Community—the main pattern that connects—that allows the generation of these social and ecological designs? What are the designed systems, and how are they related to each other, so that they constitute this organization? (Or, how do the designed systems become part and parcel of this organization?). These two questions, although central to this study, became even more important when considering a third one: How have the people of Svanholm been cultivating their resilient manner of homing for 31 years? (Or what has happened in Svanholm so that we can say that they have created a more resilient community?)

Through the examination of several designed systems and other communal conversations, in what follows, I argue and show that: (a) the co-design of several socio-ecological systems, and the interconnection between them, constitute the main platform that facilitates a way of homing in more sustainable ways, and that (b) it has been through the cultivation of a *cooperative* manner of homing that Svanholm Collective has created these systems, thereby configuring a resilient community over 31 years.

1.2. *Further Clarification of Methods*

As I show in Table 7.1, the study used the information gathered from 28 residents (adults) of the community – 32% of adult members – which took place through shared daily activities and semi-structured and informal interviews. The study also considered information obtained from 5 visitors who had established a deep relationship with the community as long-term guests.

Table 7.1: Summary of methods used and the number of informants in the study—Svanholm Ecovillage

Method	**# Community informants**	**# Visitors-volunteers who gave valuable info.**	**# TOTAL Informants**
Informal Interviews	27	5	32
Shared Practical Activities	13(1 new informant)	3 (0 new Informant)	16
Semi-Structured Interviews	3 (0 new informant)	0	3
TOTAL	43 Informants (28 persons)	8 Informants (5 Persons)	51

2. Communal Setting and Aims

2.1. Their Place

When I saw that the train from Copenhagen's airport to the city centre had no driver, there was confirmation, if I needed it, that I was entering an extremely modern and rich European country. It is needless to say therefore, that the public transport that connects the 55 km. from the capital to 'Svanholm Collective' is also splendid. The local bus left me in the region of Horns Herred—a quiet rural area dominated by modern monocultural production, and highlighted by tiny villages every 2 or 3 kilometres. Although the bus stop is only 3 km. away from Svanholm, a member of the community picked me up in a well-used communal car. The short 'guided' trip to the community allowed me to have a first and quick view of the 400 hectares or so that constitutes Svanholm Collective, of which 230 hectares are organic farmland and 130 hectares are

woodlands. We turned left. An old tree-lined road suggested to me that we were entering the heart of an important and traditional farm. However, I felt that I was arriving at a place very different from the rest of the local region. We turned right. A marvellous middle age farmhouse appeared at the top of a private road, highlighting my arrival at the centre of the community. A few of the 85 adults of the community and some guests were talking around an evening fire; a few others were conversing in the central kitchen, while paying attention to a party that some of the 46 children who live in the community were having in an upstairs meeting room. Before it got completely dark, we took a short walk around the 50 hectares of parks, ponds and fields that surround the buildings. Once inside the main building, which is one of four main constructions that are divided into either family or shared flats, I was given a private room in the 'guest flat'. I went to sleep.

2.2. Their Initial Conversations

The process of homing of Svanholm started in 1977 when two couples published an advertisement in a newspaper inviting people to discuss their idea of creating a community of 50 to 100 people. Three founders of Svanholm told me that, a few days later, the two couples had received responses from more than 500 people expressing their interest in the project. 'It is a clear reflection of the moment in which we were living at that time... we like saying that Svanholm started 10 years after the revolution of 1968', says one of them, alluding to the social movements, mainly hippies and anarchists, who, 'reacting' to the main Western-European life-style, dominated those socially revolutionary decades. The discussions about creating communities and the establishment of social and agronomical cooperatives were 'common' in Denmark then. For example, Christiania, a famous anarchical community in the centre of Copenhagen, which currently houses more than 800 residents, had been created a few years before. Nevertheless, as one of the founders of Svanholm comments, in that time most of the social movements were 'always "against" something but never "for" something... [In contrast], Svanholm is a clear example of people being tired of protesting and instead wanting to practice'. Therefore, right from the beginning, the founders of Svanholm were immersed in a positive and

generative project, with the main idea and commitment of creating a 'real' community with no political and religious goals, but through a 'cooperative' and 'anti-authoritarian' process.[25]

The planning process lasted for nearly a year. More than 120 people attended the first meeting and at least one meeting per month was needed to discuss and define the main goals and future practical characteristics of their community. In the end, 85 adults (21 couples and 43 single people) aged from 18 to 60 years old and 56 children moved to the farm and started to practically co-create their community.[26]

Figure 7.1: Celebrating 31 years of Communal Living in Svanholm Ecovillage. Left: Most of the 85 members having breakfast; Right: two days of working on the creation of a new communal playground

2.3. Their Dreams, Aims, and Practices

Both the advertisement published by the two couples in 1977 and the first planning meetings, already contained some behavioural patterns (or emotional dispositions) from which basic practical aims were defined. In fact, as many people in Svanholm said to me, the main goals that have guided their intentions as a community, both in the past and in the present, arose from their first planning process, which had a strong participatory flavour. Members of the community synthesised their goals into three points: First, 'Communal living': generation of a participatory and communal decision making process, maintaining an egalitarian and inclusive social dynamic, development of a diverse and compatible system of work and leisure. Second, 'Common Economy': generation of a 'common economy', i.e. sharing of incomes and fortunes, and

[25] Regardless of the fact that the members of the community never declared that Svanholm was a socialist-communitarian system, and indeed, on the contrary, that there was room for a varied spectrum of political views, there is no doubt that they were part of the left-wing and anarchical social perspectives of the 60s and 70s. In fact, the media and the 'mainstream', they suggest, used to label them as such.
[26] "Svanholm Collective Web Page," *Svanholm*, September 2010, http://svanholm.dk/.

communal production and administration of goods and services (After 26 years of a complete shared economy, they made some changes in their economic system and now each individual keeps 20% of his personal income). And third, Development of 'alternative farming' (or what later on, they started to call 'organic farming').

Additionally, during their communal process of homing, three other interdependent ideological principles have become more explicit, although they have been implicit since the beginning. These principles are referred to by them as 'self-sufficiency', 'ecological living' and 'self-governance' (*selvforvaltning*). In the first few years, 'self-sufficiency' was mostly associated with their food system. As one of the founders of the community, Bo Laessoe, comments, "'self-sufficiency' has always had a positive connotation at Svanholm...in the beginning, we had great ambitions of becoming 100% self-sufficient, although our experience with food production was almost non-existent. We started a herbal garden and a fruit tree plantation of one hectare each. We bought ten cows for milk and meat production, and rented an old mill to grind our own grain'.[27] However, as this study shows, self-sufficiency has been extended to different aspects of their economic and technological systems, reaching high levels of self-reliant energy and food production, and maintenance and building of the community's installations. Linked to this is their ecological living (manifested in ecological awareness and practices) that have had a similar practical expansion. As this study shows, what they called 'alternative farming' in the first few years has materialised into the generation of a complete organic farm. Green technologies and processes have also been incorporated into different systems inside the community, and the discussion of how to generate a more ecological living is a recurrent communal topic. Closely related to the notions of 'self-sufficiency' and 'ecological living' is what they call 'self-governance' which has been used in the community for the last two decades. This, originally Danish term, primarily used in the 'development of educational and management ideas', reflects the fundamental acceptance and 'stimulation' of the individual's dignity and respect towards

[27] Bo Laessoe, "Self-Sufficiency and Production at Svanholm," in *Ecovillage Living: Restoring the Earth and Her People*, ed. Hildur Jackson and Karen Svensson (Green Books, 2002), 38.

himself and others, and the need to be consciously responsible for his actions.[28] As Helene Johannessen and Birgitte Simonsen assert in their paper '*Self-government at the Svanholm Collective — learning by doing'*, although the notion of 'self-government' was not explicitly present in the first years of Svanholm, 'it was there as an underlying concept. We wanted to have a direct influence on decisions that concerned our own lives'.[29] Thus, from a communitarian perspective, self-governance implies an explicit recognition of the central role that every individual plays in the system, but always in relationship to others.

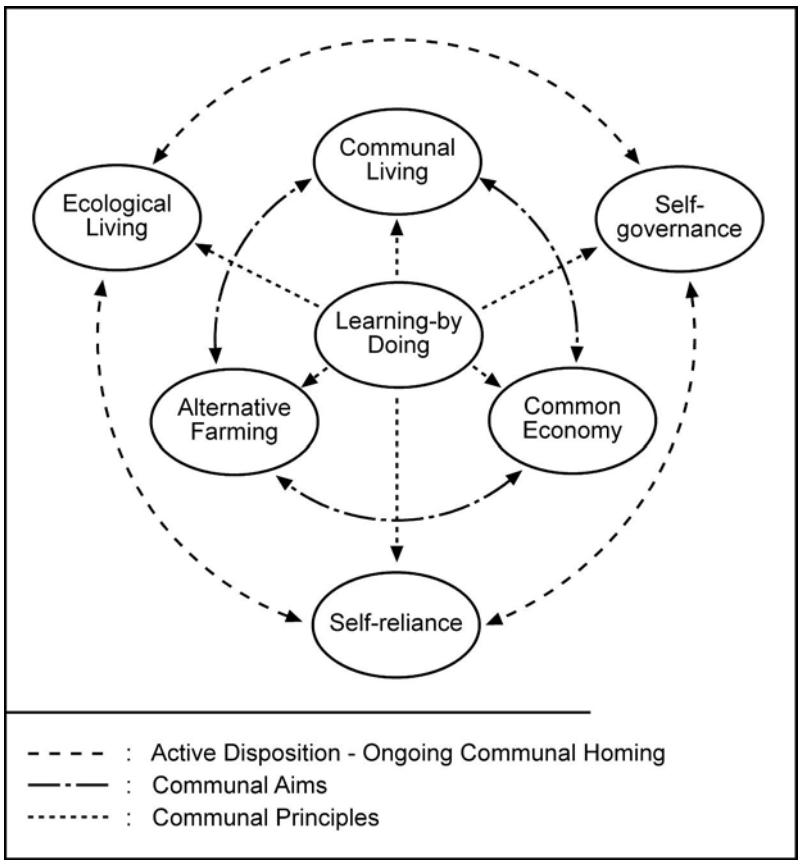

Figure 7.2: Practical Aims and Ideological Principles of Svanholm Ecovillage

Figure 7.2 synthesises these two interdependent layers of aims/principles that have been defined by the community members through their ongoing process of homing. Recalling the essentially active disposition that has been present in the community members since the beginning, and based on the testimony of several community members, Figure 7.2 shows that the way to

[28] Helene Johannessen and Birgitte Simonsen, "Self-Government at the Svanholm Collective--Learning by Doing.," *International Journal of Leadership in Education* 1, no. 4 (1998): 376.
[29] Ibid.

experience these original aims has been through communitarian experimentation—that is, through a dynamic *learning-by-doing process*. Actually, it has been from this process that they have defined more explicit ideological principles that have helped to guide their actions. Thus, based on this, and alluding to the questions already stated, the main objectives of this study were: (a) to identify and relate communal conversations that are part of this ongoing learning process, (b) to analyse how (or if) their interconnections constitute a more resilient community, and (c) to identify the essence (or the organization) of these interdependent ongoing conversations that determines and allows all this to happen.

3. Results and Discussion

3.1. Co-design of Socio-Ecological Systems

The study examined three socio-ecological designed systems in Svanholm which are described as follows: Work Organization, the Decision Making Process, and the Environmental Systems (Building and urbanization, Transport, Energy Production and Food System). From this examination, the study identifies 9 interconnected communal dynamics present in these systems that are the basis of Svanholm's social, economic, and ecological resilience.

3.1.a. Work Organization

As I said before, a key characteristic of Svanholm's process of homing has been the strong action oriented ideals and dreams of its members. Coming from quite confrontational and critical decades, they have been able to redirect their energies towards positive and active proposals, and from there, generate an 'alternative example' of homing. In this sense, work, understood as a manner of developing and cultivating a communal intention, has been at the core of the economical, ecological and social dynamics of the community. In more practical terms, the people from Svanholm have seen in communal-work the most effective way to: first, co-ordinately execute endless list of duties that continually emerge from the intention to become a more self-reliant community, and second, to pay back the original bank loan originally obtained to buy the farm. From the perspective of everyday-life, work is therefore a central activity and people show high personal commitment towards it. Talking about their daily-work activities is a common topic during social activities. Every adult member (with the exception of retired,

convalescents, and pregnant women) has to work either inside or outside the community. For the members who work inside the community, they have increased the number of working hours per week from 37 (legal full-time working hours in Denmark) to 40, although it is normal to see people working even more than that. Further, although working days are generally from Monday to Friday, it is also common to see people working on some community projects at weekends. But how have they generated such a commitment necessary to build a more self-reliant community? The reason appears to lie in the way that the working system is organized. It is a modular system, constituted by different interconnected types of work in which each individual plays a fundamental role.

At a general level, work in Svanholm is constituted by the interdependence of inner and outer jobs. People of Svanholm are very aware that communal self-reliance does not mean total separation from the outer world, but in contrast, it implies maintaining a dynamic coupling with it that is sustainable for the community. Thus, as three communal members informed me, during the first few years, Svanholm was economically very reliant on external sources of jobs, but through social coordination and hard work, they started to become much more self-reliant. Today, they generate remunerative jobs for about two-thirds of the adult community members. This has allowed them to create economic and social stability in the communal working system. As one of the people in charge of the community's finances suggested to me,

> …the income from the people working outside is very important. If they were not working outside, we would not have enough money to live here. But on the other hand, if there wasn't, for instance, a communal kitchen with people preparing food everyday, there would be no pleasure of working outside. If the farming were not here, it would not be interesting to live here. I am glad that there are people working outside because they do what they want and also bring money to the community, and they are glad that I work inside because I am doing other things that we all need. We relay between each other. Both kinds of working people are important. The community would not function without the existence of these two kinds of working and without the help between each other.

Since the first planning meetings in the late 70s, the members of Svanholm have used a working system based on the operation of 'workgroups', which is at the core of their working organization inside the community. As shown in Table 7.2, inside the community, work is organized in

different, modular workgroups. Table 7.2 summarizes the function and infrastructure of the seven principal Workgroups of the community.

Table 7.2: Description of the principal workgroups in Svanholm Community

Workgroup	Function	Infrastructure
Kitchen ***About 6 people***	Administration of central kitchen; Offers dinner three days a week Offers lunch on week days; Administrates the totally communal organic food, hygiene and cleaning supplies; Bakes bread for the community.	Complete Industrial kitchen and dining room for >100 people; Refrigeration for large amount of products;
Building ***About 4 – 6 People***	Maintenance of the public infrastructure such as roads, parks and gardens, and the technological systems such as, the water treatment system, solar panels, heating system, etc; Renovation and construction of new projects.	13,617 m2 of operational buildings and 3,675.5 m2 of private accommodation[30]; uses several workshops and industrial machinery
Accounting ***About 3 – 4 people***	Financial administration of the community; Preparation of annual Budget; Organization and facilitation of communal meetings.	An office in the main building; a meeting room for the general assembly
Farming ***About 6 people***	Cultivation of 230 hectares of organic vegetables, grain and fodder crops; 100 Jersey cows for organic milk production; Works together with the Packing Group (packing and selling of Organic food from Svanholm and other farms); Production of most food for the community (vegetables, cereals, fruits and meat)	230 hectares of organic fields; one low-tech greenhouse; several tractors and industrial agronomical technology; a new modern shed for the cows; several workshops;
Kindergarten ***About 2 – 3 people***	In charge of all the pre-school children of the community and others from outside during working hours on weekdays; design of a curriculum based on deep interaction with the outdoors.	A complete building with interior design adapted to children; a private garden; use of the outdoors and agronomical facilities
Forest and woodworking	Sustainable management of forest; Production of wooden containers, pallets and building materials; production of wooden chips for communal central heating	130 hectares of forest, a large workshop and high-tech industrial machinery and tractors
Mechanical ***About 2 people***	Maintenance of communal cars ; tractors and industrial machinery; works closely with the farming group preparing the machinery	A mechanical garage

As described in Table 7.2, each workgroup has particular tasks within the ecovillage. However, the most important point is that, only through the interaction and dependency between each other, are they able to run most of the functional aspects of the community. This means that the development of any project or daily task inside the community, although it can be managed mainly by one workgroup, depends on a congruent and coordinated inter-workgroup-coupling.

[30] "Svanholm Collective Web Page."

For instance, although the kitchen-group prepares dinner three times per week for all the community, the efficiency of the service and the quality of the food also depends on other workgroup responsibilities, such as, the growing of vegetables and fruits, maintenance of agronomical machinery, administration of the finances, renewal and maintenance of the kitchen and dining room facilities, and helping voluntarily in cleaning duties.

Figure 7.3: Modular Workgroup System in Svanholm as a Platform of eco-social interactions Left: Kindergarten Group, visiting the sheep shearing; Right: Building Group, constructing the structure of a new playground.

Complementary to the inner and outer interdependence of jobs and the modular system of workgroups is an organized structure of volunteer work created by the community members that is also fundamental to the functioning of the community. Inside the main door of the common kitchen and in the dining room there are always announcements and a list of work that needs to be done. There is also a board for opinions and the sharing of ideas about current communal projects. Almost nobody crosses that place without checking to see if there is something new to know or to do. In those lists, people usually sign-in to do voluntary work. Members have agreed that, at least once or twice a month, each individual should help in washing up the dishes, cleaning up communal spaces, and preparing lunch and dinner; these jobs however are always done in groups and are important instances of social conviviality. There are three important communal dynamics that can be extracted from this working system:

Design of Diverse, Plastic and Manageable Systems: The combination of inside and outside jobs generates a greater diversity of possibilities and opportunities to work. This generates a greater

platform of possibilities for personal satisfaction of needs and desires. Also, producing two-thirds of the remunerative jobs that are needed gives the community greater control over the quality of the work. They have been able to generate work policies that not only ensure production based on particular communal needs, but also, and most importantly, are practically focused on more eco-social concerns, such as equality between different kinds of jobs and the experimentation and generation of more ecologically oriented practices. This control of the work system also entails more labour flexibility. Working inside the community helps people to generate a more integrated way of life in which leisure, rest and personal issues are mixed with working activity. Also, there have been several cases in which, following personal desires and needs, people have changed their outside work for an inside one, and vice versa, although always trying to maintain communal financial stability. Moreover, this outside-inside balance in the system allows Svanholm community to have no unemployment. Most of the working people have one or more jobs either inside or/and outside the community, and when someone loses his job outside the community, he can work inside the community for a while.

Cultivating Dynamic Mutuality: 'Working together' is the core of the working system. There is a dynamic cultivation of a 'shared' feeling that people work together for the benefit of their own interdependent, individual, familiar and communal needs and desires. Everywhere, there are constant images of someone working for something that will benefit himself and someone else, such as baking bread, repairing a roof, going to work outside. That is, in a community of 85 people, the feedback of everyone's actions is short and rapid. So, working together in Svanholm has generated a dynamic in which the individual can find real meaning for his actions, and find that his job is important not just for him but also for others. That is, individuals become aware of their direct influence on the quality of their lives and the construction of their homes.

Also, working together in Svanholm is simply a modular and integral part of a continuous process of homing-in-community. It is not just about producing something that is needed, but also, and this is most important, it is about taking care of the community—of cultivating social relationships. Working in groups is a major moment of social conviviality in which to share, play, talk, disagree, have fun, etc. These are moments in which the domestic activities, usually so

neglected by our Western culture become vital aspects of the patterns that configure Svanholm's social dynamics. For example, during lunchtime on workdays, most of the people meet around the tables outside sharing and discussing their current work, communal projects and personal dreams. The same happens at dinnertime, in workgroup meetings, cooking, dishwashing, cleaning, and football matches.

Work and Planning Modular Interdependency: The modular working system enhances greater individual participation in community development—each individual, as we have seen, has greater opportunities to find a working place to match his own desires. This is reinforced with a dynamic interweaving of communal work and planning. That is, an important part of the communal planning and decision-making process occurs during daily working and social activities. This not only clearly indicates the existence of a more holistic blending of planning-and-action, but also illustrates how these daily and shortly-connected modular systems of work produce great opportunities for individual participation in and commitment to the communal decision making processes. All kinds of people are able to find their moments of expression. They are listened to by their fellows. This ensures the inclusiveness of personal desires and opinions in communal decisions and actions.

3.1.b. Communal Decision Making Process (DMP)

From the first meetings in the late 70s, the democratic structure of decision-making in Svanholm has been by communal consensus in which the opinion of each member is fundamental. The reason why there is so much sharing of opinions about community proposals during daily life activities is that they know they have to generate consensual agreements between each other, if they want to do a communal project.

The central decision making platform is what people from Svanholm call the 'Communal Meeting'. It takes place in the central room of the main building once a month. Projects can be presented by any individual (including children), groups or workgroups. Projects cannot be approved on the same day on which they are presented, thereby generating a longer communal process of reflection and participation. Because of the consensual organization of the system, approvals of some important proposals have taken more than a year. However, in order to

enhance consensus and to have a more efficient democracy, there are three extra processes included in the system. First, it is expected that people who veto a proposal should also generate an alternative but inclusive proposal so, ultimately, they can reach consensus. Second, when there are two or more clear 'antagonistic' opinions, smaller discussion groups, representing the different opinions, are formed. Third, some proposals and plans are evaluated and approved by 'subgroups' which have limited roles established by the 'communal meetings'. In addition to the workgroups described earlier, there are several subgroups that plan and administer some specific matters for the community such as the Economy Group, Guest Group and Educational Group. In this sense, subgroups and workgroups have a degree of autonomy and funds to plan and make projects within their area of work.

There are three important communal dynamics that give form to the whole system of the decision making process DMP:

Listening to the Other: The whole democratic structure of Svanholm is not based on convincing the other with the best argument (as in traditional politics) but on trying to 'see' the phenomena under discussion from as many angles as possible that differ from one's own viewpoint.

> If you want to have something new done at Svanholm, it's not so much about sharpening your opinions and getting the last word, but more about listening and yielding. If you're capable of being open and flexible and adapting your ideas to the wishes and needs of others, you can in turn be sure your proposals will be taken seriously.[31]

This disposition to listening to the other's position is manifested and cultivated in most of the communal activities in Svanholm. Most of the things in Svanholm are executed in groups, so achieving consensus is really a necessary daily activity. Also, since most of the decision making process (both in official meetings and in daily life activities) are constituted by the same people who face those decisions in their daily lives, people of Svanholm like saying that they are both the 'owners and employees' of the community.[32] They govern mainly for themselves—communal 'self-governance' as they called it. In such a democratic system, the feedbacks of the

[31] Johannessen and Simonsen, "Self-Government at the Svanholm Collective--Learning by Doing.," 363.
[32] Ibid., 364; "Svanholm Collective Web Page."

consensual decisions have rapid and direct repercussions on the activities of the people who made the decisions.

Indispensable Participation of the Individual: In a system with short feedback loops, the individual has direct participation in the decision-making process. This, connected with the participation in the work system, generates a platform on which, on the one hand, the individual's intention becomes a true constituent of the communal process of homing – thereby developing a sense of meaning –, and on the other hand, there is the clear context to be responsible for decisions and actions about the way that the individual participates and leads the community.

Shared Leadership: The notion of leadership in Svanholm's consensual way of homing frees itself from authoritarian and biased dynamics. Here leaders adopt a role more as facilitators of daily life activities, as occurs, for example, with the accounting in the general meeting. With a linked modular organization of work and planning, everyone can become a leader in different communal situations such as presenting a new project to the general meeting, or making a decision in a sub-group, or organizing the schedule of a workgroup during the day.

3.1.c. Environmental Designed Systems

The experimentation and implementation of more environmentally sustainable systems is not conceived as a separate issue in Svanholm, but as an integral part of the community as a whole. Different systems have been designed from and through the whole ongoing and practical process of homing in community—from and through the integration of ecological, social and economical dynamics. In this sense, the consensual decision making system and the coordinated and modular system of work have been major platforms for the development of the applied principles of ecological living and self-reliance. The ecological self-reliance that Svanholm demonstrates, demands a coordinated and intensive labour and a consensual and participatory DMP. Ecological Self-reliance is manifest in four important communal, environmental designed systems: Urbanization and building, green energy production, transport and food systems.

3.1.c.i. Urbanization and Building

Because of the pre-existent buildings and urbanization – i.e. a central residential house from 1744 next to operational farm buildings from the mid nineteenth century – there was not much plasticity for the 'urban' planning of Svanholm. However, this infrastructure was the starting point for a creative, intensive and never-ending process of modifications and adaptations to implement the goals of living in community. In fact, the notions of adaptation and reuse have been the main applied ecological principles. A central practical strategy has been to keep clustering different kinds of buildings and activities into one central area. Today, workshops, storages, tractors, the common kitchen, indoor and outdoor dining rooms, organic shop, recycling points, meeting rooms, residences, offices, kindergarten, playgrounds, green areas, football pitch, oil station, central heater station, and parking areas constitute this mixed area—the heart of the community. This has the effect of minimizing the physical footprint and maximizing social conviviality such as the amalgamation of work/leisure and adult/children daily life. Also, renovating the buildings, which is mainly done by the Building Group, is itself a constituent aspect of living in community. Many buildings that were originally farm sheds have been transformed into, for example, a common kitchen, dining rooms, offices, meeting rooms and flats. They have also carefully conserved the original green areas of the farm. The most important part is an old park next to the main building. It is an ecosystem of many oak trees, birds and insects and certainly a great place to relax, walk and play.

3.1.c.ii. Energy Production

It is generally accepted that green-energy technology is expensive. However, one of the most notable consequences of the economy of scale in Svanholm community has been their potential capacity to invest in the production of green energy. The consumption of electricity, heating and hot water come from three communal CO2 neutral systems: Electricity is produced by two wind mills and is sold to and bought back from the public interconnected system. Heating and hot water is produced in a power plant (Stirling technology) that runs on wood chips obtained from the sustainable management of the 130 ha of forest. This is complemented by a new system of solar panels. All this gives Svanholm great ecological control over the amount and quality of

energy used. The main non-sustainable consumption of energy however comes from the communal reliance on oil used in both agronomical machinery (particularly tractors) and cars.

Figure 7.4: Images of the ecologically Designed systems of Svanholm Community. Top-left: adaptation of an old shed into a communal central kitchen; Top-right: Every member has a bicycle for local transport; Bottom-left: two wind turbines that generate most of the electricity used in the community; Bottom-right: growing organic tomatoes to be sold and for internal consumption.

3.1.c.iii. Transport

Cycling in Svanholm, as everywhere in Denmark, is a central mode of transport. Their aim is that everyone living in the community should have a good everyday bicycle. In order to do that, there is a complete bicycle workshop with all the tools and spare parts necessary to maintain them. In daily life therefore, many adults and children use their bicycles both inside and outside the community to go to school (there is a primary school a few blocks away and several secondary schools in the nearby towns), to work, or just to travel around. Although public transport in Denmark is really good and many people regularly use it to go to other villages and cities, the use of cars is still an important form of transport. However, in order to reduce CO2 emissions, they have about 30 relatively old communitarian cars which allow them to minimize the number of cars in the community, to have the maintenance done by the Mechanical Workgroup and to plan

journeys in groups. Many of the community members have been reluctant to invest in more modern and therefore efficient cars arguing that ultimately conserving old cars implies not consuming more natural resources to produce new ones. However, the community is currently discussing a project to implement the use of new electrical cars using a system of batteries that could be charged up by the new wood-chip electricity generator.

3.1.c.iv. Food System

Generating an 'alternative farming' system was one of the main initial communal goals. This has entailed not only developing an internal food system but also actively participating in the food system of the whole Country through commercial production of Organic food. As I was informed by a member of the Farming Group, during the last 30 years, Svanholm has been a key factor in the rise in the consumption of organic products in Denmark, and therefore, an influential factor in the diet of many Danish people. In the early 1980s, for example, Svanholm had a central role in the creation of the Danish Organization of Organic Farmers. During that time, Svanholm was already one of the biggest organic farms in the Country and since the beginning of the 1990s, it has produced and consumed 100% organic food. Most of its production is sold in Danish supermarkets and local stores through their own packing system, *Svanholm ØkoGrønt*, one of the first organic packers in the country. This has also created collaborative businesses with other organic producers.

Figure 7.5 outlines Svanholm's food system. It indicates that this commercial business is not a separate entity but an integral part of the community as a whole. In economic terms, it is one of the most important businesses in Svanholm, thereby providing a main source of communal income and jobs for its members. In ideological terms, it has been a significant way of participating in and inviting a major society to change towards more ecological habits. But, this has also produced ideological tensions both between the community members and other external institutions. For instance, selling to supermarkets means dealing with domineering commercial norms that contrasts with the values of the community and are what many would consider ecologically unacceptable. In environmental terms, running the farm has been essential for creating a holistic communal food system—being in charge of the whole cycle of food—from its

planning, production, and harvesting, to its preparation, consumption, and recycling. Thus the main result of this system is that Svanholm is almost entirely self-reliant on vegetables, cereals, milk products and meat (lamb and beef).

By participating in many aspects of the food cycle in Svanholm however, I found that the core of this self-reliant system is not the organic food (the product, as commonly stated in conventional designed systems), but the people that make it happen, particularly, the ongoing, organized and collaborative relationship between them and a more coherent coupling with their ecosystem. All the members of the community are related through the food system in different ways, and particularly through their coordinated participation in Workgroups and in volunteer groups. As shown in Figure 7.5, in an interdependent and modular way, they organize the production of organic food in relation to the ecological seasons and the needs of the kitchen; they administer the Central Kitchen and buy food that they cannot produce; they prepare lunch everyday and dinner six days a week; they do the dishes, the cleaning up of the communal areas and the composting; they maintain the infrastructure of the kitchens, agronomical machinery, the wetland, energy systems, etc. Ultimately, everyday, they consume their own food, celebrating, reflecting and thanking their collaborative and coordinated dispositions and the ecological services of the land in which they exist. This is a clear example of the power that involves living in community.

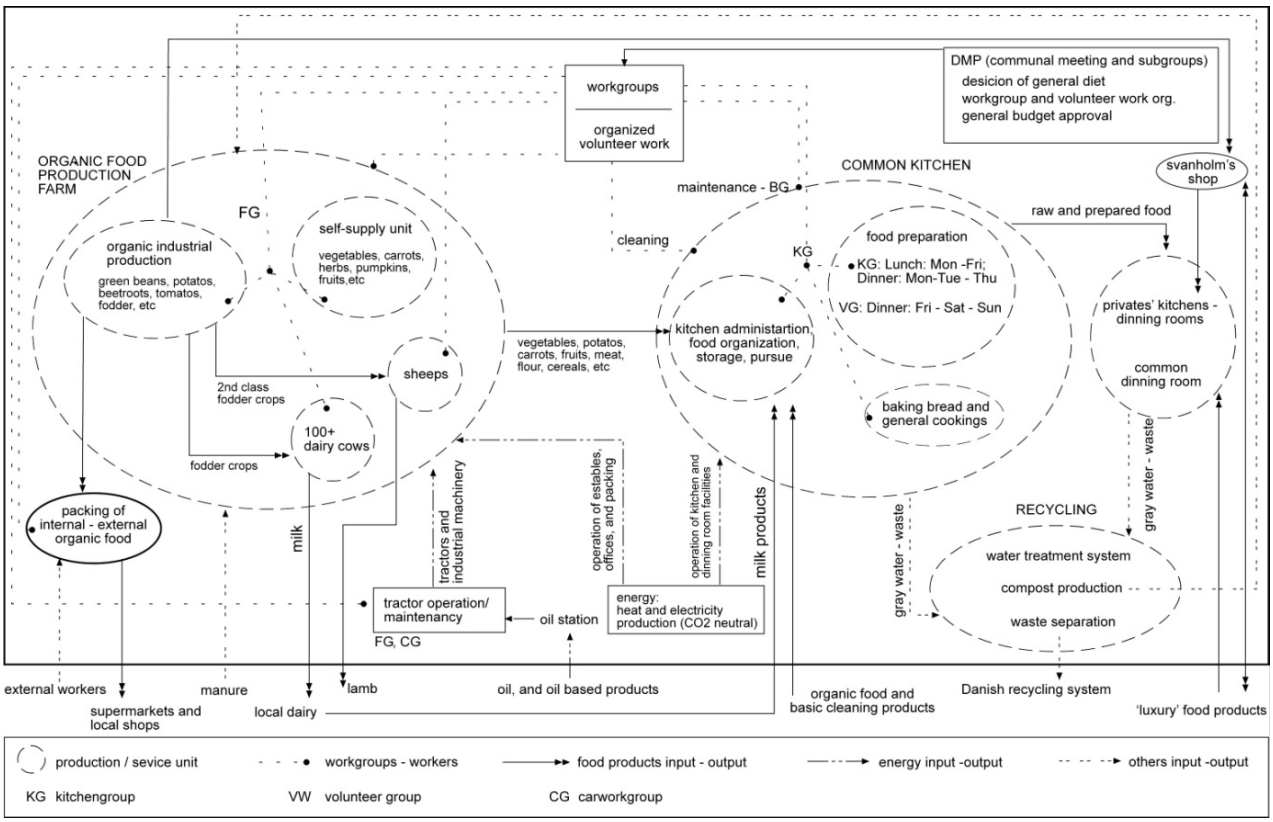

Figure 7.5: Svanholm's Food System

There are three important communal dynamics that can be extracted from these ecologically self-reliant, designed systems:

Ecological Expansion of the Notion of Community: Maintaining the physical infrastructure of the community, producing energy, growing organic food, cleaning water, etc not only implies effective social organization, but also a coherent coupling with other eco-systemic components. Members of Svanholm have established a conscious relationship with the power of the wind, the fertility of the soil, the peacefulness of the park and the wood of the forest. This creates a communal sense of collaborative partnership with the non-human eco-systemic components. That is, they have learnt that these ecological services are a fundamental part of the community—and they have learnt this through an intimate and recurrent relationship with these natural components and cycles. However, it is important to stress that most of the human relations with other eco-systemic components in Svanholm occur on a functional basis. The relationship with the rest of Nature and the way it becomes part of a community is mainly through the creation of productive

systems using ecological resources and services in a sustainable way, but not so much by establishing a spiritual relationship with Nature.

Bio-Socio-Ecological Health: For 30 days, I worked in the Farming Group, particularly in the 'self-supply unit'—a couple of hectares used to produce fresh and organic vegetables for the community. Everyday, I had to harvest a few boxes of vegetables and bring them to the kitchen—literally a direct 'from-the-garden-to-the-table' flow. The most remarkable point here is that community members not only know exactly what kind of food they consume, but also that they are responsible of its quality—that is, they have more control over their physical health. The same happens in every ecological self-reliant system in Svanholm, such as shelter and heating. In this sense, health in Svanholm is not only considered in personal terms but also in social and ecological terms. Self-reliance involves high levels of social consensual interactions, transparency and honesty. The quality of the food system also implies cultivating the health of the soil and the water. As a member of the Farming group said to me, 'since the system became totally organic in 1990, the quality and fertility of the soil has improved dramatically'.

Quick Ecological Feedback: Harvesting their own forest to generate wood-chips, cultivating the soil for their food and investing in green energy production are examples of great bioregional services to the community. However, this also has a direct feedback to their own environment. The biophysical capacity of the eco-system is much clearer and every non-sustainable behaviour has immediate consequences for the ecosystem and ultimately the well being of its people. Members of Svanholm therefore are continually encouraged to establish a long-term and more sustainable management of the systems examined above.

3.2. Co-designing a Resilient Platform of Conversations

Svanholm's work system, DMP system and ecological self-reliant systems are not separate modules. In contrast, as observed, for instance, in the food system, they are interdependent structural components of the community. Ultimately, they are part and parcel of a whole complex system of socio-ecological conversations. The most important point here is that these examined systems, which have been designed by the members of the community, *constitute a platform that facilitates socio-ecological conversations* (e.g. their DMP has facilitated the planning of many

consensual projects; the design of workgroups has facilitated the development of more ecological and coordinated maintenance of buildings; and the design of a self-reliant food system has facilitated a more ecological way to relate with the soil). In other words, it is mainly through this designed platform that people of Svanholm have been able to develop their communal dreams, projects and actions. Furthermore, it is mainly through this platform of conversations that the people of Svanholm have been able to generate, apply and evaluate their own environmental ethics. Every socio-ecological action leads to the emergence of new socio-ecologically oriented dreams, projects and actions. This study could argue, for instance, that the use of industrial agriculture (reliance on oil for tractors) and the selling of products to big supermarkets are not sustainable, as several communal members told me. However, this is not the important point. The important point is that Svanholm has created a whole system that facilitates them (and that encourages them) to open their eyes, to become aware of these and other issues, to reflect on their environmental ethics, and ultimately to have the facilitating tools to change things, and develop more ecological behaviours. Moreover, this platform facilitates several communicational tools for conflict resolution. Although there is no explicit moment for conflict resolution in Svanholm, people have learned to listen to each other, to have social conversations, and to reach consensus—all of them essential aspects for the resolution of problems that inexorably emerge in human everyday life.

Recalling the socio-ecological designed systems which I examined earlier, I have extracted 9 communal dynamics that are central to their configuration. In summary, this dynamics are: the design of diverse, plastic and manageable systems; the cultivation of a dynamic mutuality; the shared leadership; listening to the other; the indispensable participation of the individual; the holistic interdependency of planning and work; ecological expansion of the notion of community; bio-socio-ecological health; and quick ecological feedback. These dynamics are present in the community as a whole and therefore are interwoven. Their interconnection constitutes a whole communal pattern of homing that is resilient. In general terms, these interwoven aspects configure a community that is intrinsically ‘diverse’, ‘modular’ and with ‘tight feedbacks’. These

are three features that Rob Hopkins describes as essential parts of a resilient system.[33] As showed in Table 7.3 in more detail, these 9 interdependent aspects (that are embedded in the analysed systems designed by the members of Svanholm) critically resonate with what David Orr suggests are the 'basic design principles for resilient systems' which are necessary to generate more sustainable communities in the twenty first century.

Table 7.3: A comparison of the factors of practical resilience in Svanholm Ecovillage and David Orr's conceptual suggestions for resilience in human communities

<table>
<tr><th>Svanholm's interdependent designed socio-ecological systems</th><th>Interdependent aspects/principles present in Svanholm's designed systems</th><th>Orr's 'basic design principles for resilient systems'[34]</th><th>Orr's suggestion of how would be a resilient community in the twenty-first century[35]</th></tr>
<tr><td>Decentralized, self-reliant, interdependent and collaborative systems of work (WG, VG, IJ-EJ)</td><td rowspan="3">- design of diverse, plastic and manageable systems
- cultivating dynamic mutuality
- shared leadership
- deep listening to the other
- indispensable participation of the individual
- planning-work modular interdependency
- ecological expansion of the notion of community
- bio-socio-ecological health
- quick ecological feedback</td><td rowspan="3">- Small unites dispersed in space
- Redundancy
- Short linkages between modules
-simplicity and repairability
- diversity of components
- self-reliance
- decentralized control
- large margins
- quick feedback</td><td>'create more of their jobs'; 'control most of their money'; '[self]-financing'</td></tr>
<tr><td>Consensual and decentralized Decision Making Process (general assembly, subgroup organization and intimate and recurrent social relationship)</td><td>'preserve democracy'; 'rich community life and neighbourliness'</td></tr>
<tr><td>Bioregional and self-reliant environmental designed systems (food system, energy, building maintenance and transport systems)</td><td>'grow their own food'; energy, shelter, health'; utilize local and renewable energy'</td></tr>
</table>

WG=workgroup; VG=voluntary group; IJ-EJ= Balance between internal and external jobs

Walker et al define resilience 'as the capacity of a system to absorb disturbance and reorganize while undergoing change, so as to still retain essentially the same function, structure identity and feedbacks'.[36] The notion of resilience has achieved great popularity during the last decade and it has been used as a key concept for the development of more sustainable communities. The founder of the Transition Movement Rob Hopkins for instance, suggests that 'building local

[33] Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 55.
[34] David W Orr, *The Nature of Design: Ecology, Culture, and Human Intention* (Oxford University Press, 2002), 114, 115. Orr has defined these principles based on the work by Amory and Hunter Lovins and Andre Lehmann
[35] Ibid., 115.
[36] Walker et al , quoted in Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*, 55.

resilience' is central to confront current environmental problems and to develop a more sustainable society.[37] However, the concept of resilience does not suggest what and how a system becomes resilient; it is just 'a capacity', an emergent property that has to be 'built'. That is why both Hopkins and Orr, based on the knowledge of the science of ecology and system thinking, have suggested some principles/features that constitute a resilient system. In the same way, this is also why this study identified the 9 communal dynamics reviewed above that are important for making Svanholm a more resilient system. However, under this logic, it would be possible to generate endless lists of principles and features that would be part of a resilient community and still fail to understand its essence. As can be seen from Walker's definition, in a resilient system the only thing that is maintained is its organization (its existence, or 'identity') but not its structures or features. The structures of a community, such as those already analysed above, are in continuous movement and change. In this sense, the most important point in a resilient community is how these features/principles that are in continuous movement are connected together. And to understand this, it is important to see the organization of a community. It is the organization of the community that ultimately allows it to become resilient. It would be reasonable therefore to ask: what is the pattern that connects all these structures, these 9 principles/features that might generate a resilient community? The 31 years of Svanholm's existence is a fact of its strong resilience, especially if we consider that Globalization, which has been consolidated during this period, has had dreadful consequences to local communities everywhere (see Chapter 6). Members of Svanholm, in contrast, have been able to construct and cultivate a complex platform of conversations that has allowed them to realize uncountable structural changes but always maintain their organization as a community. What is the essence of this organization? What has this community been ultimately cultivating?

3.3. Cultivating an Economy of Cooperation

The central aspect of the economy of Svanholm, both ideologically and functionally, is what they call 'common economy' or 'shared economy'. In monetary terms, this is developed in three aspects: First, 20% of the gross salary of people is kept for personal use and 80% goes to a

[37] Hopkins, *The Transition Handbook: From Oil Dependency to Local Resilience*.

common pool. Second, 100% of the capital of the members of Svanholm goes to the community. If someone eventually leaves the community, he receives back his original contribution. Third, the earnings obtained from the workgroup production of goods and services go to the common pool. With this common money, the community covers all the 'basic common needs' of people, such as food, rental, water, electricity, heating, landline telephone, broadband, taxes, accident insurance, economical child support, some communal and personal events (e.g. marriages, birthdays and other celebrations), communal cleaning and hygiene, most of working transport, etc.[38] The 20% of personal salaries is usually used for clothing, travelling, dentist, personal transport, and other 'luxury items'.

However, although the members of Svanholm generally explain their 'shared economy' in monetary terms, it ultimately includes and transcends a money-centred dynamic, incorporating as well the many communal productions of goods, and human and ecological services. For instance, as I examined earlier, a large part of the outcomes of the workgroups are goods and services for the community itself, such as food and cooking. Also, there are many ecological services used to produce, for instance, green electricity, woodchips and timber. Thus, the 'shared economy' in Svanholm is constituted by a complex and more holistic socio-ecological dynamics. Ultimately, it is an economy that is much closer to its etymological meaning—literally, the *administration of home*. In this context, each of the designed systems reviewed earlier, and the 9 communal dynamics extracted from them, are fundamentally part and parcel of the complex network of conversations, of this ongoing *administration of homing* that ultimately constitute the organization of Svanholm. The main way that each of these conversations takes place and the way that they are connected between each other indicates that *the essential organization of Svanholm is a cooperative manner of homing*. (See figure 7.6)

[38] "Svanholm Collective Web Page."

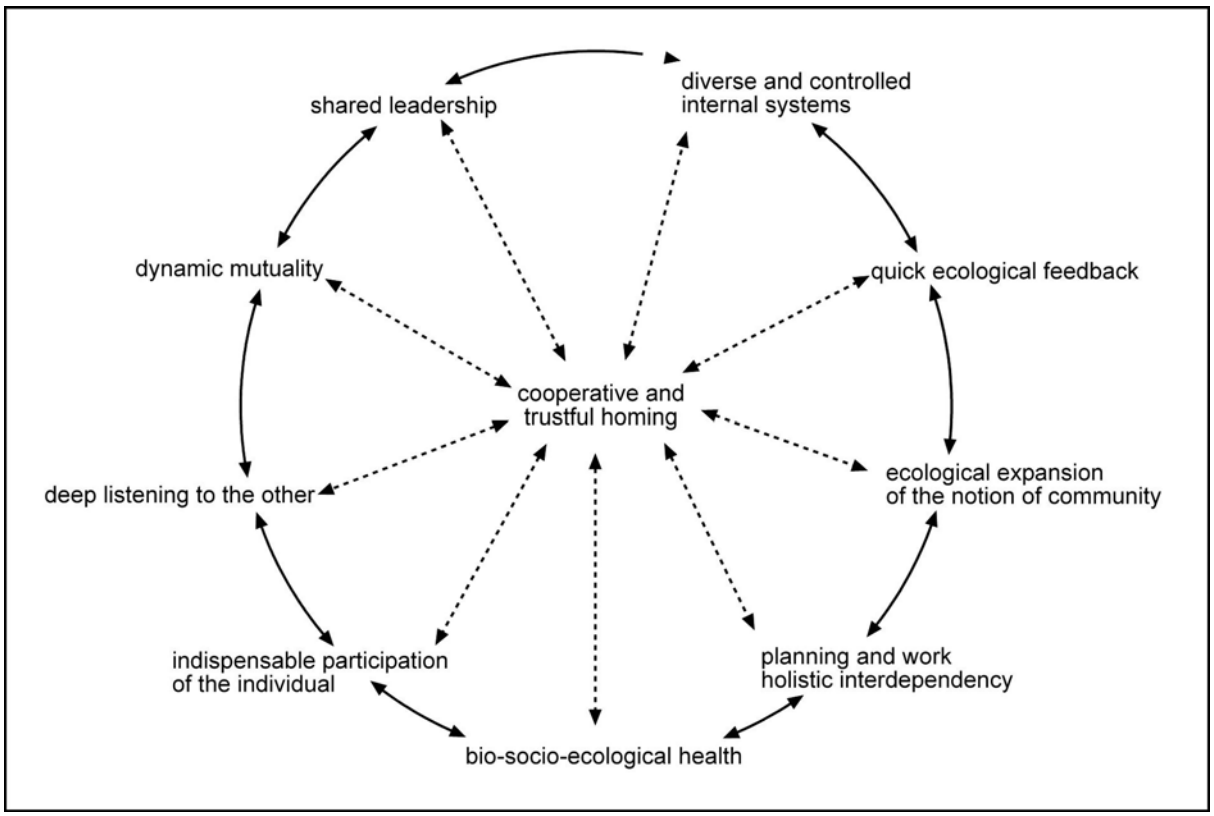

Figure 7.6: Cooperative Homing in Svanholm: Co-creation and cultivation of a platform that facilitates the emergence of a resilient socio-ecological community

The central aspect of Figure 7.1, which I presented at the beginning of this report, suggests that Svanholm is an active community immersed in a deep learning-by-doing process. An abstract overlapping between Figure 7.1 and Figure 7.6 would show, on the one hand, that this learning-by-doing process has been developed through a cooperative and trusting emotional disposition between the members of Svanholm and the eco-systemic components, flows and cycles they inhabit. Cooperation, in other words, is the pattern that connects Svanholm's learning-by-doing process—it is the essential emotional disposition that allows the creation of the analyzed social and ecological systems. That is, cooperation in Svanholm is what ultimately allows the creation and cultivation of resilience. On the other hand, cooperation is not a static and pre-given disposition. These resilient systems are the practical activities that facilitate and train the cultivation of this emotional disposition. That is, they generate a *platform* that 'invites' (biologically triggers) the cultivation of a cooperative disposition. It is through this platform that, in general terms, they really 'share' their life in community with mutual collaboration and help;

they cultivate the respect of socio-ecological diversity and legitimacy of the other—that every individual has different dreams, desires and needs and that each ecological component is fundamental to the community; they trust in the other's actions; they become consciously responsible of their individualities and their influence on the whole community; and they generate a more ecological lifestyle and help in creating a more sustainable world.

4. Conclusion

This case study of Svanholm Community suggests (or helps us to understand) that ecological design, especially when understood in the context of human communities, is not about designing products and services for unknown consumers as commonly occurs in conventional economic structures, but it is primarily about co-creating and cultivating a process of homing for the people that participate in this process. It is, in other words, self-design, or as seen in Chapter 4, co-designing. It is about how a group of people make themselves-in-the-world. Further, as illustrated by Svanholm, this ongoing creation-cultivation of homing becomes more ecological when the main pattern that connects their actions is fundamentally cooperative, not only between human beings but also with other non-human ecological others. That is, as seen in Svanholm, a cooperative system can only start to emerge when social dynamics become more interwoven with other ecological dynamics.

The study suggests that the ongoing design of a systemic platform of conversation is the main and most important ecological act in Svanholm. The case of Svanholm Community helps to reinforce the idea that ecological design is not about generating isolated modules (either products or services) but it is about *facilitating the emergence and conservation of a more holistic system of conversations*—ecological design is part and parcel of an ongoing socio-ecological process of homing.

The concept and practice of resilience has become very popular in the last few years and is sometimes presented as a central aspect for creating a change in our society towards the development of more ecological communities. Although this study considers that resilience is a key element for a more systemic and ecological understanding of the creation of sustainable

communities, it would be a mistake to reduce sustainable communities to resilience alone. Resilience, as illustrated in this case study, is not the organization or the essence of sustainability in general and sustainable communities in particular. Resilience, in contrast, is an emergent property that ultimately arises from the ongoing cultivation of a cooperative (or loving) manner of homing in community. That is, it is an emotional disposition, particularly loving, that leads to the emergence of more eco-social behaviours, which should naturally become more resilient.

Case Study 2: Interdependency between Social Participative Diversity and Designed Ecological Systems in Ecological Human Communities: the Case of Sieben Linden Ecovillage, Germany

1. Introduction to the Case Study

Sieben Linden appears as an important case study because it has developed many remarkable social and ecological systems in a relatively short time (13 years). Also, maybe because of this success, it has experienced a continually-increasing demography, which, on the one hand, has allowed the generation of a stronger socio-ecological economics, and on the other hand, has recurrently challenged the communal plasticity to adapt to new conditions. The central focus of this ethnographic study was to explore the application of two central communal precepts in Sieben Linden: First, the creation and conservation of a social system that enhances social diversity embedded in the particular manner of living of each individual; and second, the communal design of ecological systems that allowed them to live in cooperation with the natural world. Most importantly however, was the intention to explore the dynamic interdependency between these precepts, and to see how ecological design is embedded in their manner of homing.

As an additional clarification of the method of study presented earlier, my conversation with Sieben Linden took place mainly through the following activities. First, participation in two practical 'seminars' offered by the community: a permaculture week and a woodworking week (6 complete days each) in which I worked as a volunteer. These seminars allowed me to actively participate in several ecological projects developed by the community and therefore to have different kinds of conversations (activities) with the community members. Second, I also spent one week free of volunteer activities and this allowed me to conduct other kinds of participant observations more focused on communal activities where normally these would not include the presence of volunteers. Third, I also took a third seminar called 'Dragon Dreaming', facilitated by the Australian ecological economist John Croft, which, although it was not really included within the ecovillage everyday life, allowed me interact with members of the ecovillage from another, more reflective, perspective.

As shown in Table 7.4, the study used a total of 44 informants. 40 of these informants were living in the community, either as permanent or non-permanent residents. A total of 23 adults who are permanent residents of the community, were included in the study—that is, 27% of the adults that are permanent members of the community.

Table 7.4: Distribution of numbers and types of informant and the method of information acquisition—Sieben Linden

Method	# Permanent communal members	# Non-permanent residents	# Visitors-volunteers who gave valuable info.	# TOTAL informants
Informal interviews-conversations	22	9	7	38
Semi-structured interviews	3 (0 new informant)	0	0	3
Community sightsee	3 (1 new informant)	0	0	3
TOTAL	28 (23 persons)	9	7	44

2. Communal Setting and Aims

The story of the German ecovillage Sieben Linden started in 1989, when a small group of people began meeting around the idea of creating a completely new ökodorf –literally ecovillage—a socio-ecological human settlement, in which they could live in a self-reliant way. Along with regular planning meetings, they started a long process of finding land with some 'plastic' planning legislation and an open-minded local government. In 1993, as a sort of interim step, the group founded a 'Project Centre' in Chüden, Altmark, as a platform to both strengthen their conceptual idea of community living and to make some businesses with eco-social principles (e.g. they created a Free School in Depekolk, Altmark, a bakery and a guesthouse). Eventually, everything came together in 1997 and they finally bought land next to the village of Poppau, Germany, where they could really start 'seeding' their dreams.

Sieben Linden is situated in Northern Germany, between Berlin and Hamburg, in the state of Sachsen-Anhalt, Altmark district, and one kilometre north of the small village of Poppau. A regular bus service connects the village with the major regional towns, e.g. Salzwedel (27 km north), which has train services to the main German cities. A journey from Sieben Linden to Berlin, for instance, takes about two hours. The region, part of the former East Germany, is a sparsely populated region and has been historically dominated by industrial agriculture (especially pine forestry and a later transition to fields of cereals). There was also some industrial development. Sieben Linden currently occupies 82.5 hectares—47.5 ha of forest (mostly pine monoculture), 7 ha of urbanized land, 6.5 ha of gardens and organic agriculture, and 21.5 ha of leased fields.[39]

From about 10 people who started to construct the ecovillage in 1997, the number of inhabitants of Sieben Linden has grown to 124 members – 87 adults and 37 children.[40] There are people here from the new born to 70 years olds. Most of them are German. Sieben Linden has been consensually designed to house about three hundred inhabitants when its entire communal and private infrastructure is finished.

Sieben Linden has many aims that have been agreed and adapted with the passing of the years. However there are two aims that I found to be at the core of this community and that constitute the focus of this ethnographic report. As with many ecovillages, a main shared aim of the people of Sieben Linden is to generate an eco-social system in which to live—a settlement, a process of homing, in which humans and Nature coexist cooperatively. The high level of ecological design-actions present in Sieben Linden is one of the main reasons for this ethnographic study. I wanted to see what they had created, and most important, to find out how they have done it. However, this ecological pattern finds its roots in something that makes Sieben Linden special and that is also at the core of the notions of community and ecology. This was a second reason for this ethnographic study: I wanted to understand their practical awareness of the great importance of

[39] "Ökodorf Sieben Linden Web Page," *Ökodorf Sieben Linden*, September 2010, http://siebenlinden.de/.
[40] Information obtained from the web page of the community in October 2010. The information obtained during the field work however shows that almost nobody really know the exact number of inhabitant of Sieben Linden; information given by informants (n10 approx) is around 120 to 125 inhabitants.

social diversity embodied in the autonomous participation of each individual of the community. Let me explain this in more detail based on what I obtained in my field-conversations at Sieben Linden.

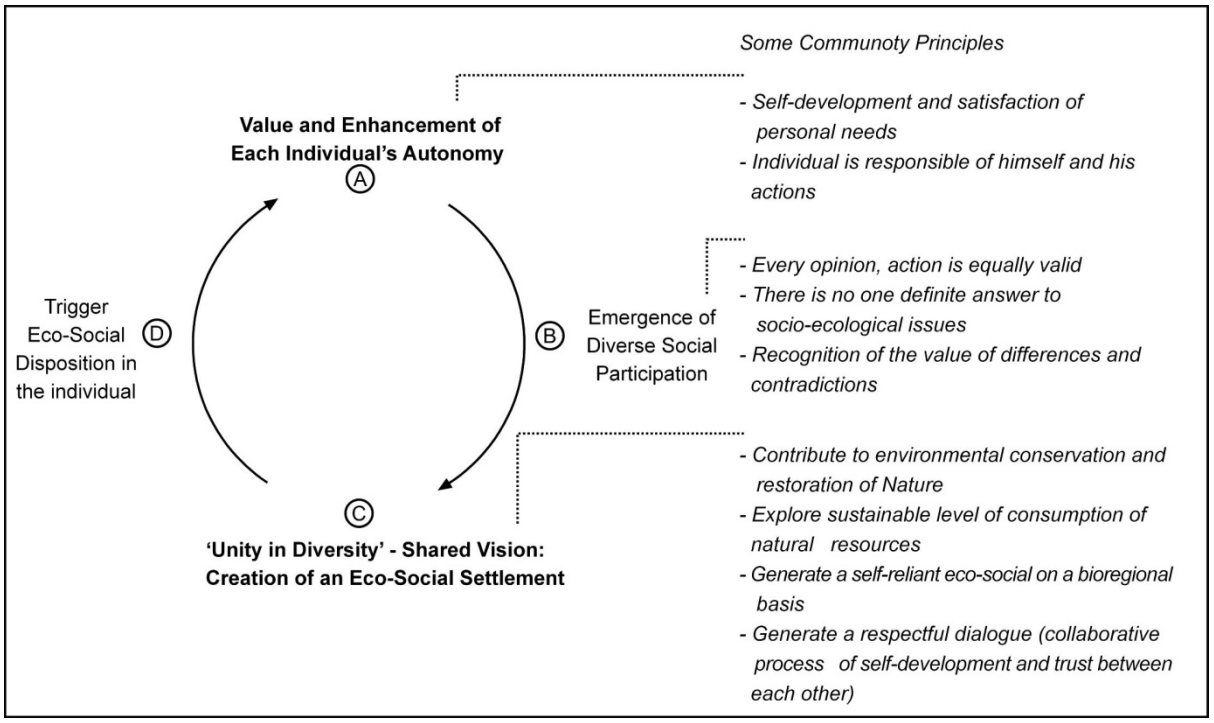

Figure 7.7: Representation of the interdependency between the aims of social participative diversity and eco-social designed systems in Sieben Linden. (A) and (C) Represent the main aims of the community. (B) refers to the importance of each member's opinion and participation for the constitution, conservation and change of a diverse and inclusive socio-ecological system. (D) indicates that the designed and implemented socio-ecological systems should facilitate (or nest) the participation and inclusiveness of each individual in the community and encourage the emergence and conservation of eco-social dispositions that therefore leads eco-social actions.

The starting point for the people of Sieben Linden is the recognition and respect of the very basis of human community: the individual. On the one hand, they want every individual to be able to holistically develop his own life, satisfy his needs, and make his place in the community. On the other hand, they want every individual to become aware that he is responsible for both the development of his life and his every action both inside and outside Sieben Linden (Figure 7.7, letter A). All this constitutes a basis for the emergence of a social system that is potentially diverse. Every belief, opinion and action that is taken is equally valid. No credo or person has any hierarchical influence over the rest. They do not follow any spiritual leader or specific religion that would command a particular community path. They define themselves as an inclusive and cosmopolitan community. Also, they think that ecological and social issues do not have a unique

solution, so, it is important that every person should contribute his own understanding to sustainable living.[41] Therefore, it is by valuing the importance of different ways of seeing and living, and of potential contradictions and conflicts, that they not only define their communal aims, but also find a main design 'strategy' for the generation and conservation of their communal goals (Figure 7.7, letter B). As some informants said to me, they want to create 'unity in diversity'. A central aim that emerges from this unity is to generate (i.e. plan-implement-cultivate) a human settlement that is ecologically and socially sustainable. From an ecological perspective, they strive to not only generate a system that does not jeopardize the natural world but also one that actively contributes to its conservation and restoration. They also want to emphatically question the levels of consumption of our Western World and explore a manner of living that consumes fewer natural resources and enhances social well-being. Self-reliance, woven within a bioregional perspective, is their main strategy to achieve these ecological goals. From a social perspective, they want to create a system based on the respectful dialogue between all the actors of the community— a system in which people collaborate with each other for their personal development in the ongoing process of everyday life, and also trust in the decisions and actions of others. (Figure 7.7, letter C). Therefore, it becomes very important to see how (or if) different designed-and-implemented systems that are aligned to these aims are both 'nesting' the participation of the individual in the community, and encouraging them to cultivate (i.e. continuously conserve, question, change and improve) emotional dispositions and patterns of socio-ecological living (Figure 7.7, letter D).

People from Sieben Linden usually distinguish between the notions of 'community' and 'village'. As some of its inhabitants informed me, their aim is to create a sort of settlement that is between these two. The essential point about the distinction between these two notions however is not essentially numeric (task of 300 inhabitants) but qualitative. When a community increases its demography, it's social, economic and ecological structures become more complex. On the one hand, community living implies high levels of intimate human interaction and is potentially easier to have effective eco-social dynamics, such as decision making processes and everyday

[41] Information gathered and triangulated from several informants and corroborated in the communal web page. "Ökodorf Sieben Linden Web Page."

management of living places. However, for instance, it might not have sufficient complexity to establish a more self-reliant economy in this complex world. In contrast, when the demography of a community increases towards a village size, the pool of possible human socio-economic interactions also increases and a more self-reliant communal economy might be achieved. But the individual's direct participation in communal matters and intimate relationships with the rest of the community members may become restricted. People from Sieben Linden have not only recognized this tension in theoretical terms but they are experiencing it. An ever-increasing demography during its 13 years of existence has demanded that they creatively adapt their eco-social systems, but always try to maintain their social and ecological aims. Sieben Linden is becoming more like a village and the task of its members is to keep all the positive things that they define as essential to being part of 'community living'. This tension is also considered in the themes that this study explored.

3. Results and Discussion

3.1. Social Diversity in Sieben Linden

3.1.a. General Social Organization in Sieben Linden

People from Sieben Linden have always been carefully aware that a sustainable life-style in general, and the generation of an eco-social community (ökodorf) in particular, can only emerge through the interweaving of different perspectives—only this kind of diversity would truly reflect an ecological pattern. In the community, these 'different perspectives' are basically embedded in each community member. Therefore, right from the beginning, they wanted to self-facilitate the emergence, exploration and testing of different ways of living with eco-social principles formed from different close relationships between individuals. This idea was manifested in the design of a general social organization that some of them call 'community of communities'. There is a major community, Sieben Linden, which is composed of several smaller communities called 'neighbourhoods' (Nachbarschaften).

Three conceptual layers configure a general social organization in Sieben Linden: the individual (his autonomous individual life and close familiar relationships), the neighbourhood, and the village (or major community). In practice however, these three layers are deeply interwoven, and,

from the perspective of each community member, configured in a particular way—e.g. there are people that live in Sieben Linden without being part of any neighbourhood; others live with their families while being part of a neighbourhood; others do not have relatives in Sieben Linden but have formed strong 'family'-bonds with other community members who might be part of the same neighbourhood.

In terms of the community as a whole, one of the first actions taken by the initiators of Sieben Linden was to create a legal cooperative (Die Siedlungsgenossenschaft Ökodorf e.G.). Every adult member of the community (permanent resident) has to be part of this cooperative. Today, a minimum of 12.300 euros is needed to become part of the land cooperative. The co-operative owns the land, the entire communal infrastructure and most of the houses; it also administers the basic services, such as electricity, water, energy for the heating system, finance, etc. The members of the cooperative meet several times a year to discuss specific issues related to the cooperative, such as the admission of new members, land organization and use, and the development of important projects.

As I was informed, during the first few years, most of the energy of the people was focused on building a communal infrastructure. A central project was the renovation of the old farmhouse using mainly reused and recycled material and low energy techniques. The farmhouse became the operational heart of the community. Today, it is a place for formal and informal meetings, cooking in the central kitchen, having lunch and dinner in community, working in the communal offices, reading in the communal library, leaving messages in the main entrance, cleaning facilities, meeting up with the visitors, etc. In other words, the construction of this centre-space has been essential in order to articulate and facilitate integration and cohesion between the members, and therefore, to dream, plan, implement, celebrate[42] and evaluate their communal actions. Also, it is what integrates the diverse neighbourhoods into one shared indoor-space.

[42] The method Dragon Dreaming taught by the ecological economist John Croft proposes that there are four interdependent stages that take place in a successful communal project: Dreaming, Planning, Doing and Celebrating. *Seminar Dragon Dreaming, Sieben Linden Oct.2009*

The idea of neighbourhoods was fully integrated into the original (but always evolving) planning process and has slowly materialised since the end of 1999. Neighbourhoods are seen as an appropriate scale for intimate human living—namely, support and commitment between members, direct participation in decision making processes, and the management of daily life. Each neighbourhood follows its own particular, autonomous, and ever-adapting social, economic, spiritual and ecological organization, all within the shared framework of being part of a community with eco-social aims—that is, they embody pragmatic and different approaches to sustainable living in community. Table 7.5 provides some information about the organization of 5 neighbourhoods. In general terms, each group has been formed with clear goals/purposes, from deep ecological lifestyles to just mutual social support. All the neighbourhoods have to be organised around buildings that, with the exception of the neighbourhood 'Poppauer Hof', have been designed and constructed for their particular needs and desires. Also, they have defined their own economical organization and their own system of decision making and communal works. They usually eat together and create basic communal diets.

Table 7.5: Descriptive information of five neighbourhoods in Sieben Linden

	Club 99	81.5	Poppauer Hof	Brunnenwiese	Windrose
Year formed	1999	1999-2000	2002-2004	2003	2006
No. of Members	5A + 2PC	11A, 8C	12A, 6C	5A,3C	7A; 5C
-Target	15-20	_	_	_	14
Statements of Purpose	Human-nature cooperation; Reduction of consumption	Family life; Support of children	Community life; Support between each other; Cross-generational project	Organic, holistic life; Low technology use	Sustainable living; Support of children
Residences	1 SB house (6R); 1SB community centre; 2 SB Domes (1r)	2 LE buildings (several family flats and shared flat)	1 traditional Building complex in Poppau (bought)	1LE house (8r)	1 LE house (14r, 2 kitchens)
Economic Organization	100% CE	In a process to generate a more CE / shared HM, BFS	Shared HM, BFS	Shared HM, BFS	In a process of experimentation / Shared HM, BFS
DMP	Consensus	Consensus	Consensus	Consensus	Consensus
Meeting	Regularly; RSM	Regularly; RSM	Once a week (OR and CR-E); RSM	Regularly; RSM	Once a week (Organizational and CR-E)
Diet	Vegan / Raw food	Mixed (Prim vegetarian)	_	Vegetarian	_
Eat Together	Nearly all (Lunch)	Often / SK/ FM / Some often in SK	Nearly all	Often / also Often CK	Nearly all / SK
Alcohol/drugs	Not allowed	_	_	Smoke-free	_

At Number of Members: A= adult; C= children; PC= practically related but not official member
At Residences: SB=straw-bale; LE=low energy; R=number of rooms
At Economic organization: CE=common economy; HM= house maintenance; BFS= basic food system
At Meeting: Regularly= weekly; OSM= often spontaneous meeting; OR= organizational; CR-E= conflict resolution-emotional
At Eat Together: CK=Common Kitchen of Sieben Linden; Nearly all=days of the week; Often= several days a week; FM=f SK= several separated kitchens; Prim= Primarily

There are several other groups who, although not considered as official neighbourhoods, have formed some degree of communal every-day life. A three-level straw-bale building called ‘Strohpolis’ forms a sort of co-housing living for several families and people who share flats. Also, there is the ‘Jule’, where several young people live in Sieben Linden for one year to deeply experience community living while working as volunteers. They have their own community centre surrounded by several trailers used as rooms, and formally meet every week and have their

own consensual decision making process. There is also the group/place 'Globolo', a piece of land that has emerged with deep spiritual significance. It has three yurts used for communal meetings and groups of a few people who live in their trailers sharing communal spaces and summer kitchens. There are also other trailer groups who share some communal facilities.

A definitive evaluation of the success or otherwise of the design idea of neighbourhoods in Sieben Linden would be inappropriate. It is an ongoing project still in its developing phase. However, the original idea of neighbourhoods has been challenged by the considerable number of people who (still) live in trailers. They are either not interested in forming a neighbourhood or they have not yet decided to commit to more shared lives in existing neighbourhoods. As a member of club 99 expressed it, 'some neighbourhoods have grown very fast, but others, as this one, have not been able to increase the number of people as we would like'. However, the co-existence between different neighbourhoods, people living alone in trailers, and others forming trailer-communities is an example of the social plasticity and diversity present in Sieben Linden. Also, neighbourhoods already embody the empirical argument about the human need for participating in smaller groups with shared ideals. They have reached a high level of direct participation and cooperative organization. Therefore, the idea of forming smaller socio-ecological systems has been ultimately disseminated in different forms and to different areas of the community.

> The reality has shown many expressions of networks and systems coming into existence instead of the clear-cut neighbourhoods. The overall social fabric that makes up the larger community organism is thus woven together from patchwork pieces – intricate patterns and colourful threads in ways that continually change.[43]

3.1.b. Internal Meeting-Setting of Social Participation, Conflict Resolution and Decision Making Processes

If there is a general characteristic in community living, particularly in ecovillages, it is that it implies an ongoing and endless process of communication between its members. Based on their ideal of social diversity, people of Sieben Linden have created a rich network of meetings that covers different aspects of what it means to live in community.

[43] Kosha A. Joubert and Robin Alfred, eds., *Beyond you and me: Inspirations and Wisdom for Building Community* (Permanent Publications, 2007), 117.

Community members usually distinguish between two kinds of meetings: 1. Organizational meetings—to discuss, plan, decide, implement and evaluate practical communal projects; and 2. Emotional meetings—for conflict resolution, reinforcement of mutual trust, personal support and compassion. These two kinds of meetings take place at different levels of social participation—e.g., at a village level, at a neighbourhood and group level, and at an individual-familiar level. Figure 7.8, depicts 18 internal (i.e. between community members only) kinds of meetings that are treated as established events. The figure does not intend to map every established meeting in Sieben Linden and it does not consider the recurrence of each meeting (there are weekly, monthly and yearly meetings), but it illustrates some important patterns:

First, social organization in Sieben Linden achieves its stability, not by concentrating social aspects of community living into one centralised event (theoretically, 0.0 in the graph, Fig 7.8), but through the implementation of several kinds of meetings. These meetings configure a complex network, an integral whole that embraces different social 'regions' of Sieben Linden. Second, this decentralised network of meetings facilitates individual participation in different communal domains and therefore enhances social diversity. Third, they are interdependent. While some meetings deal with more intimate aspects, such as neighbourhood meetings, others deal with more generic communal issues. The same happens between organizational meetings and emotional-conflict resolution meetings. The success of every kind of meeting, in terms of clarification of content and efficient and effective communication, depends on the existence of other meetings that deal with other social issues. Fourth, in more abstract terms, there is no separation between the individual and the social, and between emotion and reason. The notion of conversation, as explained earlier in this thesis, becomes apparent in this graph. The individual is a socio-communal individual, in which, through an ongoing process of conversing, emotion and reason are interwoven.

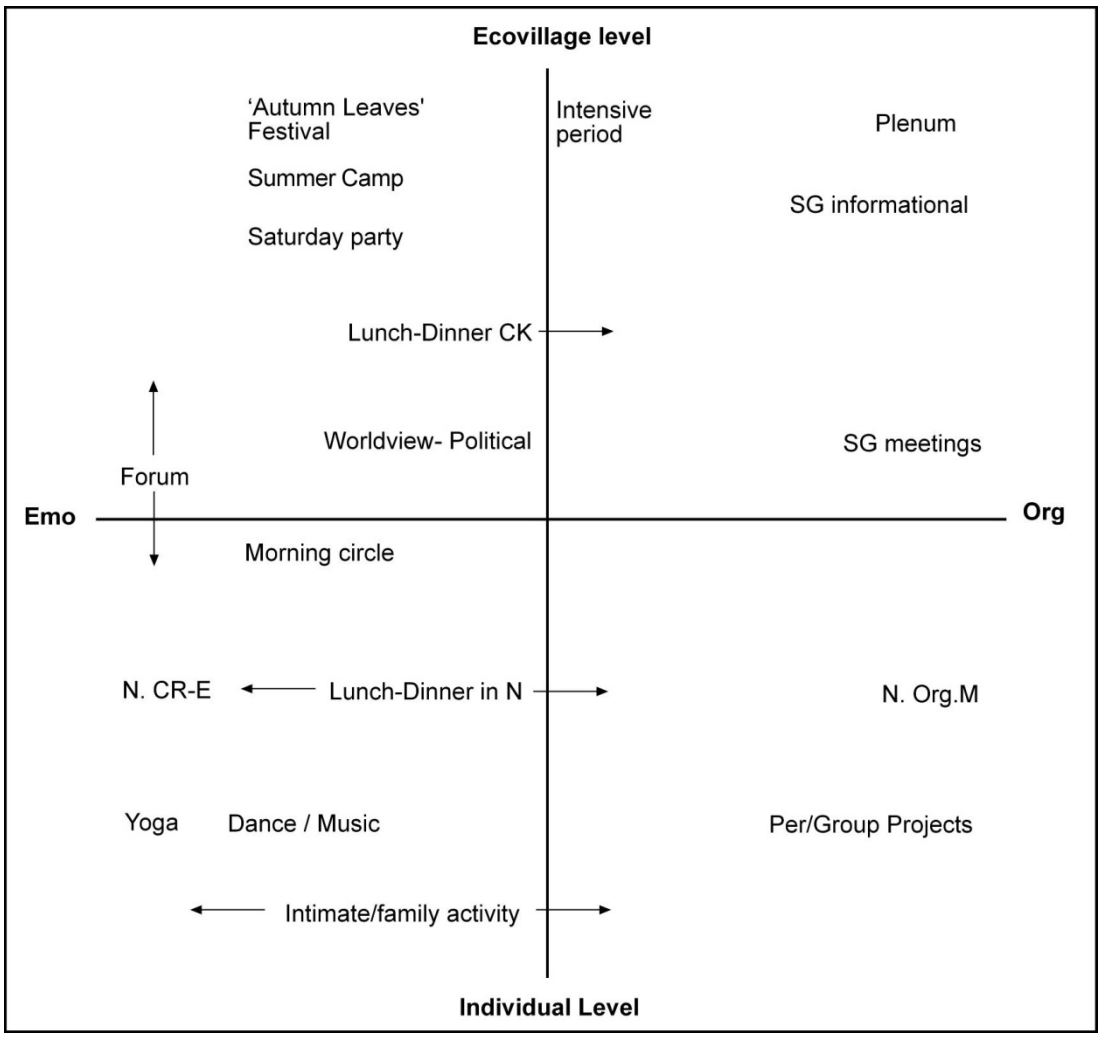

Figure 7.8: Mapping the Holistic network of 18 kinds of meetings in Sieben Linden. Emo= 'Emotional'/conflict resolution domain; Org= Organizational, practical Domain. Kinds of Meetings: 'Autumn Leaves'=yearly communal cultural festival; Summer Camp= Period of high level of social interaction and events; Intensive Period= Communal one-week meetings for evaluation and DMP of important issues (several times a year); Saturday Party= One of the weekly celebration in the community; Plenum= Maximum communal assembly for DMP (every 6 weeks); SG Informational= Committee and sub-group information of project to the community; Lunch-Dinner CK= Daily communal food served in the central kitchen; Worldview-political= Several more informal meetings in smaller groups; SG meetings= Organizational meeting in committees and sub-groups; Forum= Principal emotional and conflict resolution group dynamics; Morning cycle= Communal and group circles to start the day in community; N. CR-E= Different emotional and conflict resolution meetings in the neighbourhoods; Lunch-Dinner N.= Regular lunch-dinner in the Neighbourhood; N. Org.M= Different neighbourhood organizational meetings; Yoga, Dance/Music= Regular (weekly) practice of different arts; Per/Group Projects: Different personal and group projects within the community; Intimate/Family activity= Intimate and more private regular meetings (e.g. daily family dinner).

However, although it seems that Sieben Linden has designed a holistic network of social meetings, this does not ensure perfect implementation. As an elderly man of the community commented, 'Sieben Linden is becoming too functional; people here are in a hurry…we used to have a beautiful morning circle every Monday to start the week in connection between each other, but now no more than 8 or 9 show up. Then we lose our communal strength and joy…and people start talking and talking with no clear direction…what happens is that the trees that grow

too fast give bad-quality timber'. As Sieben Linden increases its population, the stability of this social network becomes more challenging. However, this is an ongoing learning process. As someone in the community said to me, it is 'something that must be watered every day'.

3.1.c. Decision Making Process

An important process that forms part of this network of meetings is communal decision making (DMP). For several years, the community had a main and centralised DMP. In order to guarantee social diversity and individual participation, DMP was what they called 'consensus minus one'. However, as a community member informed me, 'at the beginning, this system was good and necessary to build the community, but Sieben Linden has grown, and therefore, making communal consensus about anything became too tedious'. Another woman says, 'we lost interest and often people just voted 'yes' to approve projects uniquely to have communal consensus…they were not really participating...Also, sometimes we had to discuss about things that were too technical and specific'.

Thus, implicitly responding to the tension between the above mentioned 'community' and 'village' forms, a new communal organization of DMP was recently designed, tested and implemented in Sieben Linden. After what they have learned from their neighbourhoods, they have created several committees that deal with more particular issues and have autonomy to consensually decide about their specific matters within certain rules imposed by the still existing central plenum. Further, these committees may create even smaller groups that would then deal with specific projects. Every week these committees (embodied by democratically elected people) present their projects to the whole community, so every individual can give his opinion or, if really interested in some project, eventually become a more active agent within the committee. There is still a common assembly (or plenum) that deals with major communal issues and projects but its democratic structure was changed from consensus to two-third votes to approve projects. There is the option to 'veto' a project, but this involves presenting an alternative that must be supported by other members of the community.

Additionally, every neighbourhood in the community has its own and autonomous DMP that deals with the neighbourhood's organizational matters.

In summary, there is a complex, decentralised network of DMP in the community that deals with different but interdependent levels of social organization, from major communal decisions, to more technical and specific ones(e.g. in committees and sub-groups), and to more private ones (e.g. in neighbourhoods).The main idea behind this new network of communal DMP is to keep expanding the constitution of groups where truly direct participation can be achieved, and to enhance confidence and trust in the decisions made by others. As I was informed by several people, this new system has facilitated more efficient and effective DMPs and has improved the individual participation in a complex system of more than 120 people. Ultimately, this network is still based on consensus and the only way to generate communal projects and keep social attachment and trust is by, as a community member said me, 'listening to the perspective of the other'.

3.2. Ecological Systems Design

The generation of a diverse, inclusive and participative social system would be meaningless if it was not associated with individual and collective purposes and actions. As I said earlier, a fundamental, communally shared aim in Sieben Linden is the generation of an ecologically sustainable village. Therefore, the success of the social organization can be assessed by seeing how it has facilitated the creation of both individual and collective environmental systems that together configure more environmentally sustainable patterns of living. It is also important to explore how designed and implemented ecological systems influence the emergence and cultivation of individual ecological emotional dispositions and therefore, how they enhance social diversity.

Ecological living is a central aim in Sieben Linden. As Jonathan Dawson suggests, 'Sieben Linden represents an attempt to create a very low-impact human settlement that is woven into the fabric of its own bioregion'.[44] Thus, the main ecological strategy in Sieben Linden is to generate, as far as possible, an ecologically self-reliant community with a bioregional perspective. Two major ecological principles are applied in this strategy: a positive contribution to environmental health and a reduction in the consumption of natural resources and waste.

[44] Dawson, *Ecovillages: New Frontiers for Sustainability*, 28.

3.2.a. Positive Contribution to the Eco-system: Waste is food

I arrived in Berlin on a cold autumn morning. The idea of having a coffee and then a German sausage with mustard was good in order to confront the freezing temperature. However, after the three hours that it took me arrive at Sieben Linden by train and bus, a terrible stomach-ache with diarrhoea symptoms was deeply affecting my entry to the community. Very indecorously, though nonetheless understandable, the first thing that I did in the community was rush to the toilet. Such was my urgency that I had to learn how to use a modern composting toilet for the first time in a hurry; moreover, the instructions were in German! Nonetheless, I controlled my panic and, in the end, the whole process turned out to be quite simple: you take a seat, an automatic back-flap opens and you defecate as usual. You have to take care however that the urine goes through a front funnel—the separation of the excrement from the urine is essential for the generation of compost. Once you finish, you have to add a small quantity of woodchips which were in a small container in the back compartment to facilitate composting and reduce the smell—there is no water involved in composting toilets. Apart from the obvious physical reasons, I was overcome by a great sensation when I finished: I felt that I had actively taken part in a larger interconnected system that was truly ecological!

There are only composting toilets in Sieben Linden. All human excrement is taken in closed containers from the toilet to the composting site. As a person in charge of the job said me, 'the composting process takes about two or three years… a very good quality soil is produced and increases the amount of important micro-organisms in the local ecosystem'. The compost is used to nourish the forest and ornamental plants. The forest is used, among other things, to produce wood for heating water, which is used in kitchens and bathrooms, and eventually to contribute to the food system.

The design and implementation of this system, used by all community members, has great meaning for them. A woman said to me:

> Compost toilet is the most incredibly beautiful process…I have learnt to be part of this cycle…The compost toilet is for me a symbol that we, as humans, are willing to look at the dark spots, the shadows; that we are really willing to embrace them, work with them and grow things out of them.

This meaningful human process contributes to the emergence of an emotional disposition in the individual that nourishes a communal design strategy that is essentially ecological: waste must be treated at home and therefore becomes the 'food' of other components of the eco-system, including humans.

> If humans are truly going to prosper, we will have to learn to imitate nature's highly effective cradle-to-cradle system of nutrient flow and metabolism in which the very concept of waste does not exist. To eliminate the concept of waste means to design things—products, packaging, and systems—from the very beginning on the understanding that waste does not exist.[45]

The composting toilet in Sieben Linden plays a key role in the function of a designed ecological system that attempts to be as self-reliant as possible. It not only contributes to enrich the soil around trees but also to maintain a clean and safe water cycle. This is important in Sieben Linden since it has a closed water system (see Figure 7.9). Water is mostly obtained from a natural well in the community and, to a lesser degree, from rainwater gathered from the roofs of the buildings. Gray, used water (mainly from bathrooms and kitchens that use only biodegradable products) is treated in two wetlands before it is used to water the production of food or reintroduced directly into the soil. Eventually, by being absorbed by the soil, it becomes part of the natural well of the community once again.

Food in Sieben Linden is completely organic. The community is about 70% self-reliant in vegetables, which are grown by remunerated community members. Every morning, during the growing season, someone brings fresh vegetables to the central kitchen. There is a complete local composting cycle in this process. The food system is administrated by a communal cooperative that buys any extra food they need from local organic producers. All the community members are part of this cooperative, which, for 7 euros per person per day, supplies them with all their basic food. Many people have customised the supply of food to their own needs. The food for children is paid for by all the adults of the community. Food catalogued as a 'luxury' can be obtained from a small community shop.

[45] William McDonough and Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things* (North Point Press, 2002), 103-104.

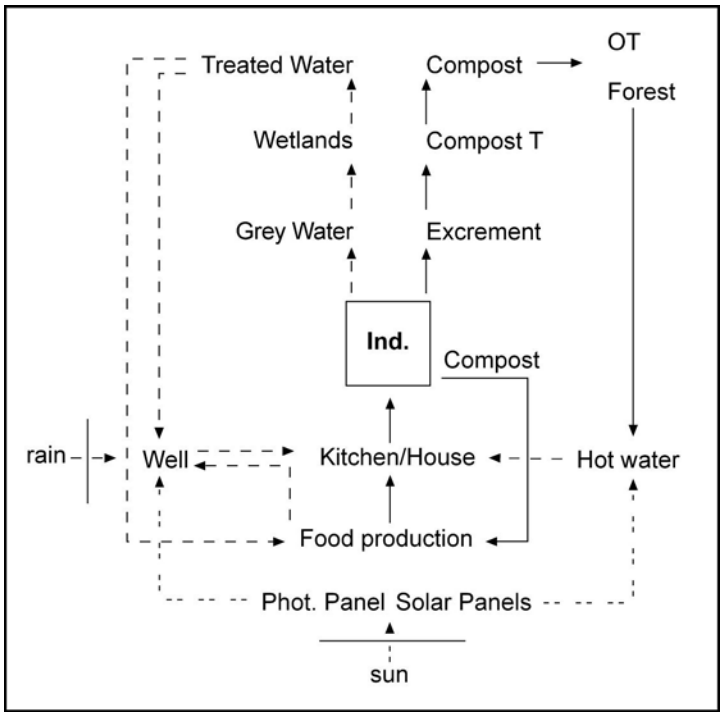

Figure 7.9: Key role of the individual in appropriate transformation of waste into eco-systemic 'food' with particular emphasis in the closed water system and compost system in Sieben Linden. Ind.= Individual; OT= ornamental trees; Phot= photovoltaic.

In the interconnected compost toilet system, water system, and food system, the individual plays a key role (Figure 7.9)—every individual in Sieben Linden is part and parcel of these cycles, not just by consuming natural resources but also by helping to maintain and enhance the health of the ecosystem. Through this active eco-systemic participation, the individual becomes consciously responsible for the importance of his actions in the conservation of these communal designs.

3.2.b. Reduction of Consumption of Natural Resources and Generation of Waste

With a self-reliant strategy and a positive contribution to natural cycles, the reduction of waste becomes really coherent. As Roseland asserts, 'the best way to reduce waste is by not creating it in the first place'.[46] A well designed 'closed' cycle of biodegradable matter does not generate waste but enhances the quality of natural cycles, as shown in the community ecological systems

[46] Roseland, *Toward Sustainable Communities: Resources for Citizens and Their Governments*, 74.

already described. In contrast, resource reduction in a badly designed system, i.e. one that contaminates the environment through waste emissions, only slows down environmental depletion and destruction, but it does not solve the problem caused in the first instance.[47]

Additionally, reducing the consumption of natural resources is an integral part of the strategy in Sieben Linden. They consider that the Western lifestyle cannot be organised around ever-rising consumption of natural resources, and so, most of their ecological actions are focused on reducing their ecological footprint to more ecologically sustainable levels as defined by them. The results of this holistic strategy are significant. A study undertaken by the University of Kassel in 2001, measured the CO2 emissions[48] of Sieben Linden and compared it to other villages and the German household average. The study showed that Sieben Linden's overall CO2 emission per capita per year was 28% of the average German household. The heating system and housing system were particularly low at 6% and 10% of the national average respectively.[49] The very low CO2 emission form the heating and housing systems can only be explained if we consider them as part of a more holistic bioregional perspective of living that takes place in Sieben Linden:

One of the jobs that I had while I was at Sieben Linden was helping in the ecological restoration of the forest—a communal programme that started about 9 years ago. The plan is to convert the original pine monoculture into a mixed forest that includes species such as oak, birch and cherry. In one week, we—ten volunteers and up to five community members—planted several hundred trees on 2 hectares (Figure 7.10). During these two weeks, in a field next to the restoration area, three remunerated people from Sieben Linden were also harvesting wood. That is, the restoration of the forest goes hand-in-hand with a sustainable forest management for the production of firewood and building materials. Some trees are chopped with small machinery and then removed by horse power to prevent soil erosion and to avoid the use of big machinery. Then the area is cleaned and prepared for ecological restoration (Figure 7.10). By managing the forest in

[47] McDonough and Braungart, *Cradle to Cradle: Remaking the Way We Make Things*, 53-54.
[48] Study based on generation, transport and consumption of electricity, heating, water, travel, and food.
[49] "Gemeinschaftlich Nachhaltig - Unikassel Versitat", October 2010, http://www.usf.uni-kassel.de/glww/index.htm; Also in Dawson, *Ecovillages: New Frontiers for Sustainability*, 29.

this way, Sieben Linden is not just generating the natural resources for its heating system but also it is helping to create more local biodiversity. Additionally, they have become aware of how much and how fast the forest can be consumed in order to develop a healthy transition to a more mixed forest and maintain its sustainable consumption.

Figure 7.10: Sustainable Forest Management in Sieben Linden: Left: Extracting fire-wood by horses for the community heating systems. Right: Converting pine monoculture into a mixed forest, enhancing local biodiversity. Pictures: Gonzalo Salazar, Oct. 2009

That is why the wood harvested from these forests provides only around 70% of the requirement for home heating. The rest is bought from other producers within the bioregion. Each house and trailer has its own heating system. Some of them are high technological heaters that, in combination with solar panels also supply hot water. Others, such as the ones used in the trailers, are simpler fire heaters and stoves. In each residence, every individual therefore again becomes fully responsible for consuming within levels that are sustainable through the forest in Sieben Linden.

Many trailers in the community have passed safety and environmental building regulations, and therefore have been legalized by the authorities and are considered as proper houses. However, in the community, trailers are not considered to be permanent residences and many still have insulation problems, and they are not considered sustainable. I slept in one of them and struggled to keep it warm. After two weeks however, I moved to the main residence of the neighbourhood ‘Windrose’, which was very well insulated —one of the five straw-bale houses built in the community which are modelling the use of more bioregional and ecological methods of housing.

Weather conditions that demand high insulated residences and the local availability of straw-bales, wood and clay were perfect arguments for the development of a bioregional housing system with straw-bale technology in Sieben Linden. Thus, the construction of straw-bale buildings has been the main design strategy for making an ecological and economical transition from trailers to houses.

Figure 7.11: Housing in Sieben Linden: Transition from circus-trailers to self-designed straw-building residences. Top-left: typical trailer in Sieben Linden used as residence; Top-right: 'Strohpolis', the first and largest three-storey straw-bale building in Europe; Bottom-left: 'Villa Strohbund', Club 99, hand-made 100sqm straw-bale community centre; Bottom-right: Second straw-bale building designed and constructed by Club 99

In general terms, straw-bale building reflects an ecological design strategy that is visionary and systemic. It focuses its attention on the production of a building material that, if used with bioregional principles, should not cause future environmental problems. It does not require the creation of sophisticated reuse and recycling programs, since it is fully biodegradable. Also, it has extremely good insulation qualities—i.e., between R-30 and R-50[50]—and therefore reduces

[50] R-values are commonly used to measure material insulation. It denotes material ability to resist the flow of heat.

the consumption of natural resources for heating and cooling.[51] It has also great fire resistance because dense bales contain small amounts of oxygen within the blocks.[52]

The results of straw-building in Sieben Linden are remarkable. First, it has become a centre for the experimentation of different techniques, allowing them to develop important new innovations. For instance, they constructed 'Strohpolis', the first and largest three-storey building made of straw, timber and clay in Europe. Second, the German association of straw-bale building was created in Sieben Linden. Third, they actively contributed to the ultimate approval of the straw-bale as an acceptable general building material in Germany in 2006.[53] Fourth, they offer several courses and seminars on straw-bale construction methods thereby helping to increase this knowledge in Germany.

The housing experiments realised by the neighbourhood Club 99 have been the most radical and significant. Club 99 is committed to reducing its level of energy consumption by 90% of the German average mode of living. With this aim in mind, between 2001 and 2003, they constructed, entirely by hand, their communal house 'Villa Strohbund', one of the first straw-bale buildings in Germany with full regulatory approval. As a member of Club 99 told me,

> this house was the most radical house built in SL, and I think one of the most consequent ones in the Western world. We used almost uniquely biodegradable and reused materials: most of the timber is from our land, cut by hand and pulled by horses; the straw-bale was biologically grown and the resources for the plaster was obtained from our ground and prepared only by hand and foot; we reused old windows from other houses and used stones for the floor and the foundations…Students from the technical institute of Berlin did the technical analysis of the footprint of this building process. The result was that the pollution of air and water of this building process compared to conventional building of the same size was less than 1%. The CO2 emission had a negative balance: more CO2 in the house is fixed in the wood used than the CO2 emitted to construct it... all in all with this house we went farer the aim of reducing our ecological impact in 90%.

[51] Chris Magwood, Peter Mack, and Tina Therrien, *More Straw Bale Building: A Complete Guide to Designing and Building with Straw* (New Society Publishers, 2005), 8.
[52] In June, 2003, the German Institute for Building Material (Institut für Baustoffe, Massivbau und Brandschutz - IBMB) tested a straw-bale wall of 50cm width and 3cm clay render on both sides. The wall resisted fire exposure (up to 1000 degrees Celsius) for 90 min. Heidi Snel, *Houses of Straw: The Rediscovery of Strawbale Building*, 2004. See certification of test in http://www.downloads.fasba.de/oeffentlich/pruefzeugnisse/AbP-F-30.pdf (visited in Oct, 2010)
[53] http://www.worldhabitatawards.org/winners-and-finalists/project-details.cfm?lang=00&theProjectID=740B4CEF-15C5-F4C0-99FC9EA83F00FB5C (visited in Oct, 2010)

A second house was built in Club 99, but this time using more conventional methods, materials and tools. The idea was to build a house closer to the mainstream method of construction so it could model the construction of houses in the bioregion but, according to the members of Club 99, still be considered ecologically sustainable—i.e. with a footprint 90% lower than the German average.

The process of constructing these residences confirmed a truly bioregional and ecologically sustainable model of building in this community. Ecological architecture here was a learning-by-doing process. This illustrates, in more general terms, why ecologically designed systems imply deep connection with and learning from Nature—that is, experimenting with the hands-in-the-earth—a source of ecological meaning and knowledge. Further, they involved high levels of social interaction and coordination. The construction of the first residence required the participation of many volunteers and more than 10.000 hours of work were needed for its completion.

Finally but no less significant, about 85% of the consumed electricity in Sieben Linden is generated by communal photovoltaic panels. The energy is sold to and bought back from the German grid. In order to maintain high levels of self-sufficiency in electricity, they use it in a very responsible way and only where it is considered strictly necessary. For instance, there is no light in outside public places such as roads, gardens and parking zones, and buildings have also been designed to maximise the use of natural light.

3.2.c. Designed Ecological Systems - Implications for the Individual

As shown in Figure 7.12, ecologically designed systems in Sieben Linden have important implications for each individual's process of homing: First, these systems supply the individual with many basic products (e.g. insulated residences, clean water, green energy and organic food) that are essential for survival. Second, these ecological systems become a source of meaning for the individual: the individual becomes part and parcel of these systems—his participation is fundamental to the correct functioning of natural cycles in general and the designed systems in particular. Also, these systems require a close relationship with natural process and cycles—putting hands-in-the-earth—triggering emotions that value the true importance of Nature in

human life. Third, these systems enhance ecological responsibility: the individual is aware of the ecological limits of the systems and therefore is consciously responsible for how much they can be used and how he can contribute to the health of the eco-system in which he lives. Fourth, implementing and running these systems requires high levels of interaction and coordination and becomes a valuable source for the inclusion and participation of the individual in social dynamics.

These implications help to trigger and conserve emotional dispositions that are consequently essential for the generation, maintenance, evaluation and change of communal eco-designed systems.

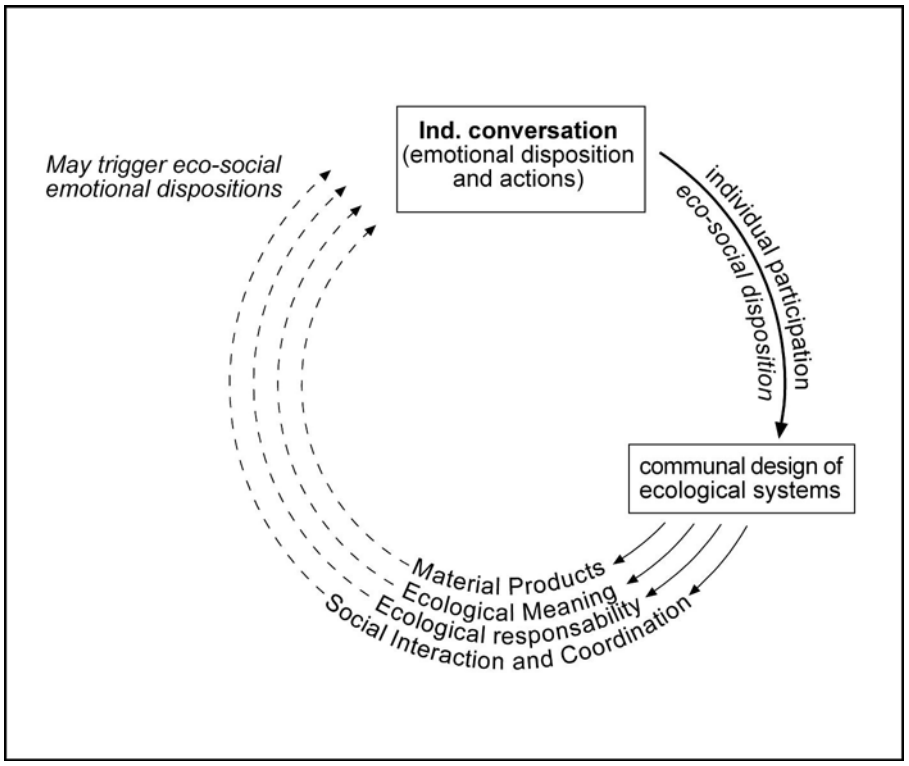

Figure 7.12: Triggering-Conserving ecological conversations in Sieben Linden. Ind.= Individual

4. Conclusion

A socio-ecologically designed system, like that at Sieben Linden, is not just a passive product ecologically oriented, but an active eco-systemic component that would certainly influence an individual's manner of homing. Although it is not possible to state that the designed systems in

Sieben Linden that I have reviewed will trigger the emergence and conservation of eco-social dispositions (i.e. loving dispositions) because, cognitively, the individual is an autonomous (organizationally closed) being, it is clear that these systems facilitate and positively invite and encourage the individual to keep nourishing a manner of homing (or conversing) that is socially and ecologically oriented.

Likewise, the creation and conservation of these designed systems (including a recurrent evaluation and change) can only happen if a socio-ecological disposition becomes a central pattern in the ongoing process of homing of the community members. All this reinforces the main statement of this thesis—namely, that (1) loving is the bedrock of what is usually referred to as ecological design, and it is therefore essential for the generation and conservation of sustainable communities; and (2) that designed systems in an intimate socio-ecological domain is the bedrock for the emergence and conservation of such a loving disposition.

Thus, each individual of the community plays a key role in the conservation of the community and the manner in which it is developed. The process of homing of each individual is deeply interwoven with that of other communal members and non-human eco-systemic components and cycles and therefore deeply influences the life of others and the way that different social and ecological systems are designed and maintained.

The design and conservation of social systems (e.g. DMP and social meetings that encourage social diversity-individual participation-) and the ecological systems (e.g. self-reliant water and compost toilet systems and bioregional straw-bale housing) in Sieben Linden are interdependent. The case of Sieben Linden shows that it is essential to understand that social well being and ecological sustainability are inseparable. That is, as suggested in Chapters 1 and 2, human beings are socio-ecological beings. The separation between social and ecological dynamics is futile. Furthermore the members of Sieben Linden are showing that it is possible to live a much simpler life, i.e. less consumption of natural resources, without sacrificing personal and social well-being. Even more so, the positive contribution to the ecosystem's health has been a generator of social inclusiveness and well-being.

Experimentation of diverse ways of homing with eco-social principles deeply contributes to challenge behaviours that are normally considered ‘acceptable’ in environmental terms both inside and outside the community. Experimentation with straw-bale buildings is maybe the clearest example. It has challenged (and helped to change) conventional environmental and building legislation by showing what might be and how one achieves a truly bioregional process of housing in this part of the world.

Finally, the process of designing in Sieben Linden cannot be understood just as one of planning the development of a future system. Rather, as proposed in Chapter 5, the process of designing is part and parcel of a complex and holistic dynamics of homing; a dynamics in which planning, constructing, conserving, evaluating and changing are deeply interwoven.

Case Study 3: Spontaneous Living and Lack of Coordinated Community Life: Keuruu Ecovillage, Finland

1. Introduction to the Case of Study

Keuruu ecovillage was initially chosen as a case study because it was a small community of only around 30 people, with a very simple lifestyle yet one with the intentions of creating ambitious socio-ecological projects and becoming more self-reliant. The idea was to identify and examine different kinds of socio-ecological conversations that were part of the process of generating this communal intention. However, a few days after my arrival, I started to notice several ways of conversing that, at the same time, were impeding the realization and cultivation of a way of living in socio-ecological terms and therefore this also became part of my ethnographic research.

Ecovillages are usually presented as models for alternative ways of homing that are socio-ecologically sustainable. In this sense, the most common way to argue this is by showing well-known communities that usually (1) have already generated great ecological projects, (2) have more than one hundred inhabitants, (3) have achieved a fluid social integration and democratic participation, and (4) have developed high levels of economic self-reliance. It is certainly important to explore and learn from these 'successful' ecovillages (as I have explored in my other two case studies). However, with the present case study, it soon became apparent that examining the notion of ecovillages based uniquely on positive 'products' can lead to a misunderstanding of the complexity that is behind these socio-ecological systems. In particular, there are potential difficulties that these communities might have to confront both internally and externally. Therefore, it is important to study and learn also from ecovillages that, in some way, are having difficulties in integrating their socio-ecological dreams. It is also through the lack of some basic forms of relationships that we can truly understand how fundamental they are to generating and cultivating a socio-ecological manner of homing. Thus, the central focus of this case of study was to identify and examine positive and negative conversations (i.e. some conversations that are contributing and others that are preventing the generation and cultivation of the ecovillage that the members wish to form), which are in tension with each other.

From the perspective of ecological design, this means trying to identify basic practical and emotional aspects that should be part of the communal process of creating and cultivating a more sustainable community.

1.1. Further Clarification of Methods

1.1.a. Study Informants

The small number of members of this community allowed me to interact with all the members that were present in the community during my visit (n25 –adults: 20, children: 5). However, several members did not speak English and others lived in very solitary ways, so it was quite difficult to establish a fluent conversation with them in only 24 days. As shown in Table 7.6, the study therefore used the information obtained from 13 members—52% of adult members—who participated in shared activities, informal interviews, and semi-structured interviews. It also used the information gathered from three frequent visitors with a strong relationship with the community.

Table 7.6: Distribution of numbers and types of informants and method of information acquisition—Keuruu Ecovillage

Method	**# Community informants**	**# Visitors-volunteers who gave valuable info.**	**# TOTAL Informants**
Informal Interviews	10	3	13
Shared Practical Activities	7(3 new informants)	3 (0 new Informant)	10
Semi-Structured Interviews	3 (0 new informant)	0	3
TOTAL	20 Informants (13 persons)	6 Informants (3 Persons)	26

1.1.b. Dragon Dreaming Method

In order to identify and analyse different positive and negative aspects that take place in Keuruu's significant lack of practical communal projects, the study used the structure of the method of Dragon Dreaming (DD), as taught by the Australian Ecological Economist John Croft. Briefly, DD is a design method for the holistic development of communal projects that is socially and ecologically oriented. It postulates that a project is never 'wholly confined to the single individual'—it always implies a relationship with other beings who constitute an eco-systemic medium, and that it has a dynamic combination between theoretical and practical realms.[54] DD suggests that there are four stages that take place in any project: stimulus, threshold, action and response. In practical terms, these stages take place in personal dreaming, communal planning, communal doing, and collective-personal celebration, respectively.[55] Each of these stages (or quadrants) is constituted by another four practical stages, as shown in Figure 7.13. I have participated in two DD courses in which I have learned this method. As points of clarification however, first, I only used the DD method to facilitate the later analysis of information taken in the field study and therefore did not interfere with the way that the information was obtained. Second, in order not to force the understanding of Keuruu's dynamic process of homing into an external method, the study used DD only as a general framework. It did not apply the more specific aspects/processes that this method normally uses.

[54] John Croft, "Dragon Dreaming: The Art and Science of Running Exceptionally Successful Organizations and Projects for the Great Turning" (unpublished document, 2009).
[55] Ibid.

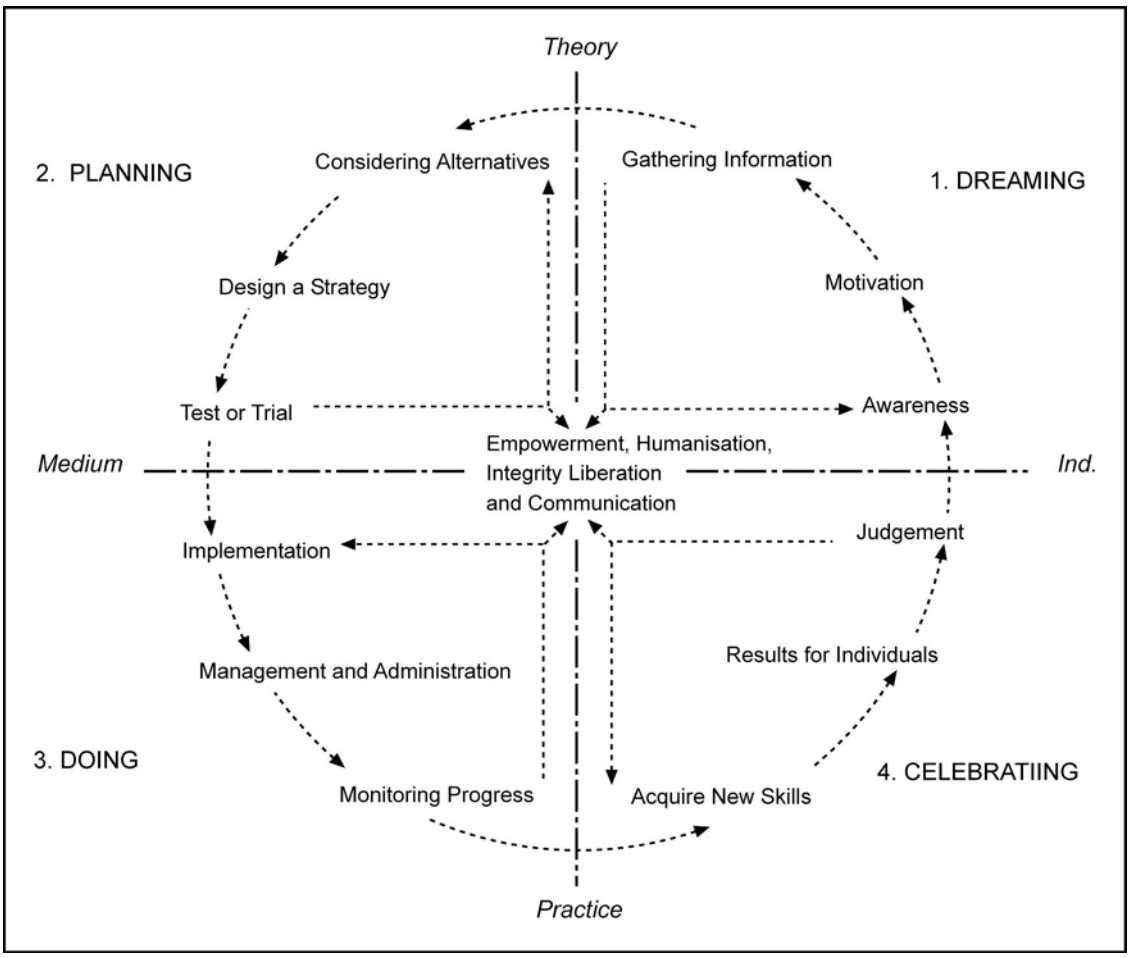

Figure 7.13: Dragon Dreaming: Process for Running Outrageously Successful Projects. Adapted from John Croft 2009

2. Communal Setting and Aims

2.1. Communal Setting

Keuruu Ecovillage was formed in 1997 by four people in the region of Central Finland, 150 km north of the city of Tampere, and 8 Km from the town of Keuruu which has a train connection to the main cities. The Community is situated in the countryside which is predominantly forests of pine and birch, agricultural land of cereals and roots, and interspersed with many beautiful lakes. The place has 58 hectares of which 23 hectares are organic fields (rented to a private producer from whom the community buys some production) and 17 hectares are sustainably managed forest. It has a huge and complete building infrastructure. Among the most important facilities, there are a central building (the community centre) with a large industrial kitchen and dining-room for 100 people, a library, a large sport area with an indoor pitch, offices, and a children's

room. It also has a guest-building that can accommodate up to 40 people, partly inhabited at present by a few members of the community. Three other buildings are used as residences and another one is used for special community meetings, A few other buildings are in the process of restoration. There are also several large and slightly used barns and workshops in the process of deterioration. They also have some saunas (a Finnish passion), two of them next to a beautiful small lake that embraces the community.

Figure 7.14: View of Keuruu ecovillage from its lake

2.2. Communal Dreaming

This entire building infrastructure already existed when the community moved in and then decided to buy in 1998. It became part and parcel of the community life as the members of the community have slowly adapted and restored it to their needs. Thus, with this place, the four original people embarked on a truly learning-by-doing process of creating an ecovillage. Two of the original founders told me that the group of people increased to about 40 members in a few years. However, although there was a communal intention to generate a socially respectful and environmentally ecological community, they had great difficulties sharing and ordering their dreams. They did not have enough social and ecological tools to organise themselves and run this large place that demanded a lot of energy and organization. The community also started to attract people with mental and alcoholic disorders. The result was the emergence of a chaotic way of homing and for several years they had to deal with many unsocial issues. Most of people left the community and others were even expelled due to anti-social behaviour. As one of the founders said to me,

> during the first years in the community we had lots of fights…we did not have good tools to handle the conflicts… We did not have any values and principles written down… After few years people started to leave the community because it was not well organised.

This lack of a clear shared view and communal organization however can be seen as a turning point that has slowly triggered dispositional changes in the members. As one person informed me, 'during all these early years I realized that human relationships are the most important thing'. People started to become more aware of their unsustainable situation and collectively began to generate some changes towards the development of a more respectful social system. For example, in 2001, they consensually implemented a few basic behavioural norms (no excess of alcohol, no official religion and moralizing preaching to others, no dictatorial actions, and no physical and psychological aggression). But most importantly, they started to converse with each other by listening to the dreams of each member. Since then, the community has been slowly growing. In July 2009, the time of my visit, it had about 28 people (23 adults and 5 children).[56] Further, from a process of planning a communal mission in 2007, they consensually reaffirmed and clarified their main communal dream— to generate a self-reliant ecological community based on socio-spiritual values of tolerance and respect.

Table 7.7 summarises the main objectives that embrace the communal 'Mission 2030'. I was informed that, although some of the goals of this mission were implicit in the first decade of the community, it was only ten years after the community was born – i.e. in the winter of 2007 – that community members could define them explicitly and write them down as shared aims.

[56] None of the consulted people (N6) gave me an exact number of members. However most of them said that it was around 27 and 30. There are few people that go and come in the community so people do not really know if they should be counted as permanent members.

Table 7.7: Summary of 'Mission 2030 of Keuruu ecovillage, approved by consensus in the spring of 2007

Main goal: to create an ecological and economical self-reliant community
To be spiritually tolerant and respectful of life, social diversity, and traditional cultures
To be a social and ecological model of living for 100-150 inhabitants
To create different communal districts (community of communities)
To use only ecological and bioregional building construction
To have food and energy self-reliant systems
To have sustainable forest management
To be financially debt-free and create diverse sources of income inside the community
To cooperate between community members to reduce use of money
To Implement working-group system
To operate a kindergarten
To be a major training centre for sustainability
To have recurrent traditional celebrations and cultural events

The reaffirmation and explicit clarification of a shared main aim and Mission 2030 already demonstrates a change in the manner of homing in Keuruu. However, as this study shows, there are still many dispositions that are counteracting the development of a daily life in relation to these intentions. The next section therefore, deals with the following questions: what are the main conversations that are configuring Keuruu's ongoing process of homing and therefore are leading this communal intention? What are the conversations that are facilitating this process? In contrast, what are the conversations that are preventing a fluid manner of living in socio-ecological terms? Finally, which kind of conversations are those that become fundamental to creating and cultivating this intended way of homing?

3. Results and Discussion

3.1. Identifying General Aspects and Conversations of Keuruu's Pattern of Homing

Summer is short but intense in east-central Finland. Nature's active period—blooming, pollinating and the production of seeds—is really concentrated, and the continuous daylight makes life flourish like nowhere else. Finnish people know and appreciate this well. Like every living being in this part of the world, they become more active and practical. They go outside, leaving behind months of darkness and enjoying nourishment from the sun, the fresh food, and the warmer water of the lakes and rivers. The 24 days that I stayed in Keuruu allowed me to identify some kind of recurrent conversations that constitute a pattern of homing in this community during this naturally most active and productive time of the year.

In order to start the examination of these questions, Figure 7.15 identifies and classifies several kinds of recurrent conversations in Keuruu. It does not intend to be a detailed illustration of the experienced reality because it is not the experienced reality, but only an explanation of it that will always be reductive. However, it helps to identify and classify different kinds of conversations that constitute a pattern of living in the community. It also helps to perceive the intensity of the flow of living in the community; to perceive the main emotions that constitute this rhythm; and to examine how individual and group activities are interwoven. Let me describe four constitutive aspects-conversations of this pattern of homing: the individual, meal-meetings, work-leisure-rest, and the communal 'Monday meeting' and 'Thursday meeting'.

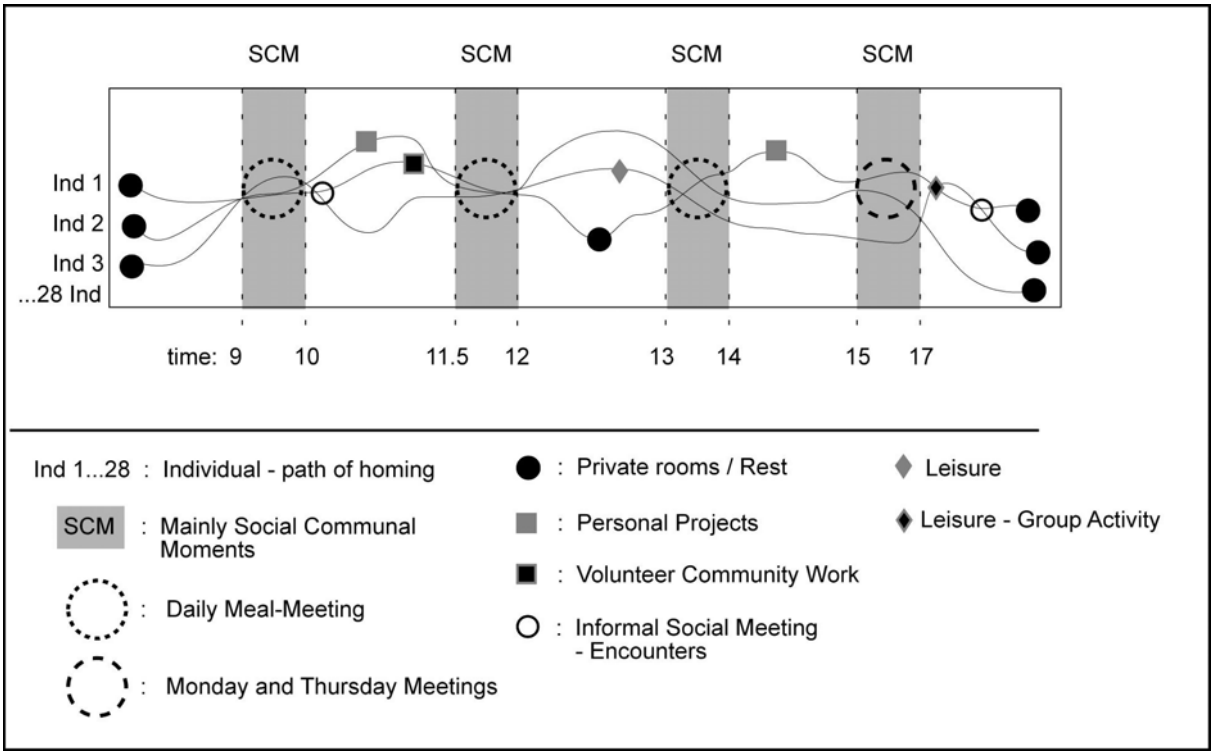

Figure 7.15: Synthesis of the general pattern of homing in Keuruu during the summer of 2009

- The individual: The value of the individual as an autonomous being plays a key role in the configuration of the community's pattern of homing. This is reflected in two practical aspects. First, each individual has a private domain in the community that is totally respected. As a community member informed me: 'as Finnish people, we like to be alone with ourselves, to be quiet and calm, and also to respect the privacy of the other'. The most eloquent example of this takes place in the existence of clearly bounded private rooms. During the day people often go into their rooms and will hardly ever be interrupted by anyone. It is a sort of personal refuge from

the rest of the community. Also there are many spaces/projects, such as small personal gardens and craft-hobbies that maintain clear individual boundaries. Second, there is a consensual practical principle in which every individual is free to follow his own path of living, following his personal interests and dreams. Any activity, either for personal or communal interest, is done because the individual wants to do it and not because it has been imposed by anyone. Apart from basic behavioural norms, the individual has no communal obligation in Keuruu, but only freely adopted responsibilities that he can take or leave whenever he wants.

- Meal-meetings: There are three daily meal-meetings in Keuruu: breakfast at 9:00, a short tea break at 11:30; and lunch at 13:30. Some people also gather around the central kitchen around 15:30 to have a tea break and around 19:00 to pick up some food for a simple dinner. Meal-meetings are the most important and participative communal conversations. In fact, they are the only regular conversations in which most of the members come together for a communal purpose. Thus, they constitute the main social synapses in the community. They are peaceful and calm moments. Through a daily participation in and observation of these conversations, I noticed that people talk most of the time, sharing opinions and experiences, but always carefully listening to the voice of the other and almost never raising the tone. Further, these are moments in which nobody seems to be preoccupied with the passing of time. In contrast, people seem to spontaneously enjoy the present, the 'here' and 'now'. Simply, these social encounters seem to last for as long as they last. Particularly, breakfast and lunch during weekdays can continue for up to two hours. These meetings therefore define a basic daily routine in which community members stop whatever they are doing and come together to share their lives.

- Activities-working-leisure: Between these meal-meetings people tend to disperse around the place and occupy themselves in different and mostly individual activities/projects. As a community member said: 'everyone does what he or she wants…and we are so different that there are many projects in which people work alone'. Most of the people stay in the community on working days. Only a few have full-time or part time jobs outside. In general, working (i.e. more practical and productive activities) is concentrated from 10:00 to 15:00 or 16:00. Nevertheless leisure, relaxing and working are interwoven throughout the day. So, it is easy to

see that, at one and the same moment, there might be people walking around, fishing, working on administrative issues, restoring an old house, relaxing in their private room, meditating, gardening, baking bread, cleaning, or painting.

Many of these personal activities however are related to satisfying daily communal needs such as cooking for lunch, cleaning the guest rooms, doing financial administration, etc. Their idea, as expressed in their 'mission 2030', is to generate a pool of activities and jobs inside the community that allows them to be more self-sufficient. In the beginning there was a minimum of 4 working hours for the community per person per day, but it has been recently changed to a no-limit-of-hour's system (both minimum and maximum). It is voluntary work and 'each one does what he can and wants to do', as several informants said to me. Although some people have adopted more fixed community jobs (such as growing vegetables and working in the administration office), and there is an incipient creation of more stable working-groups (such as the organization of the kitchen), many people work for the community through quite inconstant activities that are defined weekly or even daily. So, although there are fixed responsibilities, the community work system as a whole is quite random and spontaneous.

Between 15:00 or 16:00, the general level of working activity decreases and people tend to dedicate the rest of the afternoon to relaxing (however, there are people, particularly those who have great communal commitment, who commonly continue working until quite late in the evening). Some choose to go to their private rooms (that is, they simply disappear from the communal space), and others stay outside using some of the facilities, such as going to the lake with children, walking in the forest, going to the sauna or playing music.

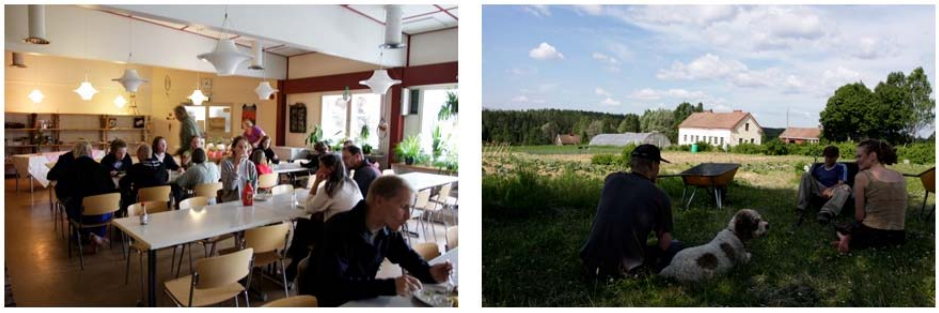

Figure 7.16: Lunch time and afternoon rest in Keuruu Ecovillage

- Monday and Thursday Meetings: There are two weekly meetings that take part during the afternoon. The 'Monday Meeting' is the central board for communal planning and decision-making. It is open to all community members. There is always someone in charge of the organization of the content and facilitation of the meeting. As a few of the oldest community members said to me, there has always been organizational meetings in the community but 'only in recent years, it has become more formal, ordered and effective'. The decision making process in Keuruu is by consensus. I had the opportunity to attend two meetings, and the most remarkable aspect that I noticed, was the great respect and attention that people had for the person who was talking—everyone had several and an equal number of opportunities to express their ideas during the meeting.

The most common task of the meeting was to generate a list of duties that had to be done in the community. These lists generate a framework of activities to which people freely sign up to carry out. The number of people that usually participate in the meetings is between 7 and 9, as someone informed me (the two meetings that I attended were 6 and 8 participants respectively). That is a relatively low number of participants: 'there are many people who are simply not interested', a man said to me. Thus, there are many people who are not actively participating in the planning of communal issues (both in the long and the short terms) and only sign in to some volunteer jobs after the meetings.

The Thursday Meeting is dedicated solely to sharing personal emotional states, and for communal conflict resolution. There is a special room for this meeting, although in the summer

time it can take place near an old tree which is considered to be the spiritual centre of the community. The level of participation is even lower than Monday Meetings. Only between 5 and 6 people participated in the three meetings that I perceived during my visit. However, as I was informed, these meetings have become more regular in recent years.

3.1.a. Implications

There are three important implications that can be taken from the latter aspects and the kind of conversations about Keuruu's general pattern of homing. These implications are focused on the relationship or tension between the individual and the community and therefore configure the main way or form of Keuruu's pattern of homing.

-The rhythm of the Keuruu's homing process: As illustrated in the communal meal-meetings, in Monday and Thursday meetings and in the interweaving of work- leisure-relaxing, the intensity of the rhythm of homing in Keuruu is calm and peaceful. People do not live in a hurry, working against time. In contrast, they seem to value and encourage the spontaneity of living in the present. There is always time to stop, to rest and to reflect. There is always time for a tranquil chat and to carefully listen to the opinions of the other. There is time to dedicate a moment to any eventuality that might happen during the day, to contemplate, and to be connected with Nature. What is most significant is that the community members want to live calmly and have created a communal organization (i.e. there are no working obligations; no established working hours) that facilitates and even encourages them to live with this rhythm. From the perspective of every individual, this means that they have the possibility to act more coherently and in coordination with their actual desires and needs. This latter point somewhat evokes what I have referred to in Chapter 6 as the 'path-builder'. It is a rhythm that goes-step-by-step, concentrating in the present moment that the person, coupled with his medium, defines and follows.

- Being-in-place: Because community members can occupy themselves in projects of real personal interest, they can work to create and nourish their own niche in the community, and to feel that they are at home in this place. It is from this personal niche that they give meaning to their presence and participation in this community. For example, one of my volunteer occupations was helping a woman in about 2000 m2 of garden in which she grows vegetables for

the community. The vegetable garden was created about 7 years ago and she has been in charge of it ever since. She taught me part of her art of cultivating vegetables in a challenging climate. As she has done it for many years, I too learnt-by-doing. She showed me how to cover and fertilise the soil with a particular kind of grass, to identify beneficial weeds, to kill only those that are harmful and to harvest those that can be eaten. She also showed me which species should be grown together and to take care of those that are affected by too many hours of sunshine. It is from this personal connection with the earth and the vegetables that this woman cultivates her place in the community and not only gives meaning to her participation in it, but also allows her to get to know her bioregion and her world—its ecological and spiritual dynamics—from her garden. As seen in a previous chapter, the 'fireplace' is the core of homing and the core of the fireplace is oneself in connection with one's niche. This woman's garden, the meditation of a Buddhist, few farm animals of a young lady, the building-restoration of an elderly man, or the playful environment of few children, are examples of being-in-place, of understanding and creating a community, a world, from one's fireplace. (See Figure 7.17).

Figure 7.17: Individual projects in Keuruu Ecovillage.

These two implications are constitutive examples of the respect for the autonomy of each individual who exists in the community—namely, it is this respectful disposition that allows each individual to find his own place in the community and to have the possibility of living in accordance with his desires. Because of this respect, people also listen carefully to each other in the meetings, and through them they 'have come to know the weaker and stronger aspects of each other', said a community member. This communal respect took many years to emerge, so people now seem to be very aware of its importance. As a woman said to me, 'we have some kind of harmony now… The most important thing in this community is that our relationships are good… we have come to know each other better… I think that this is the ground of community living'. Another woman said: 'here we have slowly created a basis to solve our problems talking between each other'. Through respect they have become tolerant and transparent. But most importantly, the emergence of a respectful disposition has become the emotional bedrock that makes possible the creation of communal conversations—that is, the design of more socio-ecological systems.

Thus, these two implications—namely, those that emerge from a respectful disposition embedded in many conversations, can be presented as the most remarkable aspects of this community, particularly in spiritual and social terms. Nevertheless, there is a third implication implicit in Keuruu's pattern of homing that challenges and even undermines these respectful implications, so it is understandable that it is the main concern of the community. This is the lack of communal, coordinated and effective design/creation of practical projects. Let me examine this more deeply as follows.

3.2. Insufficient Coordinated and Effective Realization of Practical Community Projects

The fact that working activities are normally done on an individual basis and organised in a generalised, random and spontaneous way, and that most of the communal social interactions occur during the meal-meeting, suggests that there is a significant lack of coordinated and consensual communal activities or projects. Briefly: 'there is not enough cooperation between us', a younger member said. The main implication of this is that the community, as many members commented to me, appears to be unable to effectively generate long-term and

emblematic projects that would truly contribute to generate a more socio-ecological pattern of homing.

The following questions emerge: Is respect enough to generate and cultivate community life with socio-ecological principles? Or, can respect be entirely coherent in community living if it is not complemented by a more actively cooperative and consensual dynamics in the community? In other words, is it possible to cultivate the two respectful aspects of Keuruu previously stated without generating communal, coordinated activities or projects? Should the community members become more motivated by and committed to the production and conservation of their community and if so, how?

In order to examine the lack of a coordinated and effective realization of projects in Keuruu and to analyse the importance for their existence, Figure 7.18 synthesises some of the interwoven communal dynamics that are either contributing to or complicating and impeding the successful creation of these kinds of projects.

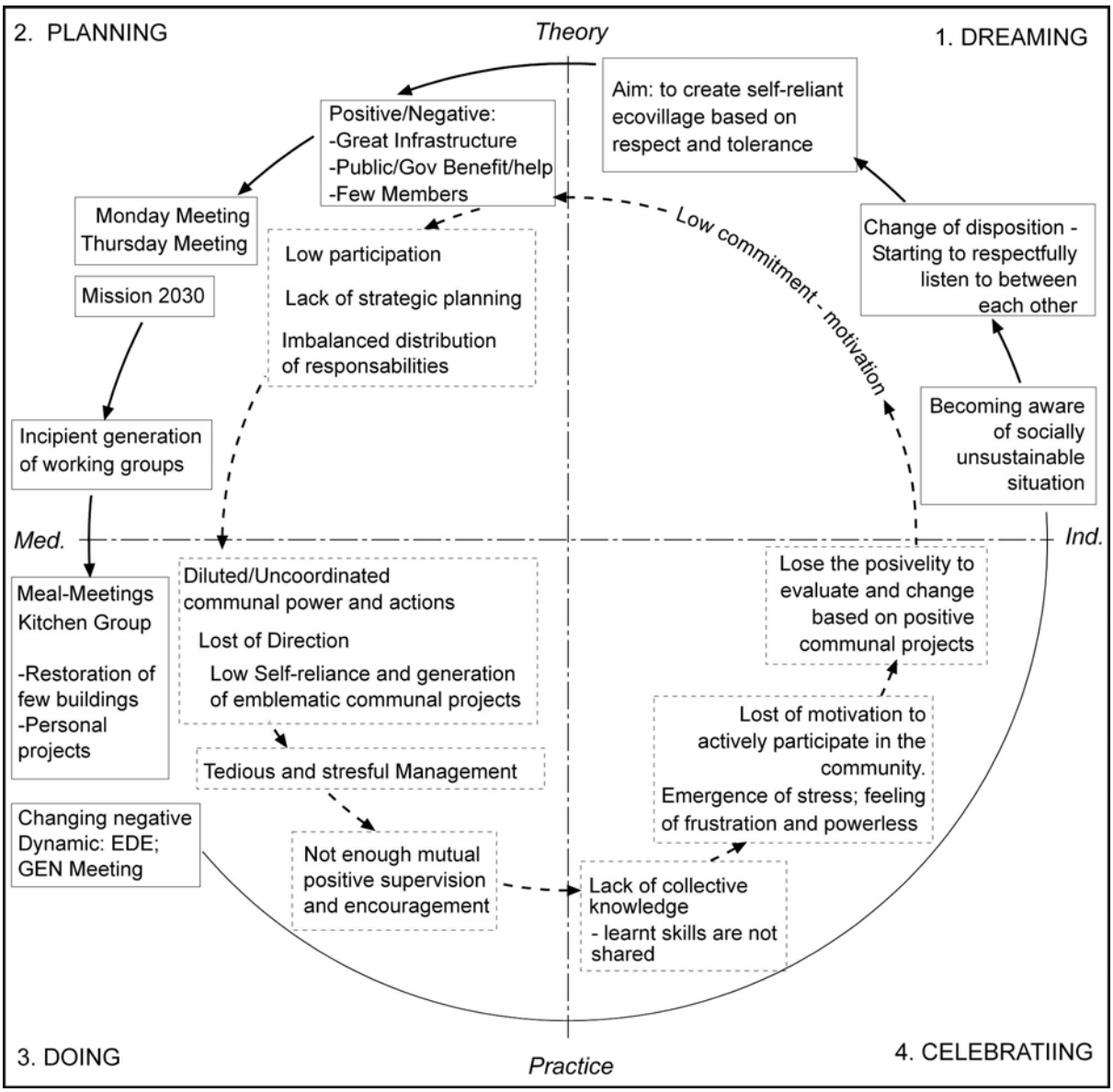

Figure 7.18: Synthesis of cause-effect of lack of communal realization of practical projects – Analysis based on Dragon Dreaming method. External cycle shows positive conversation that are facilitating and encouraging homing-in-community. Internal cycle shows conversations and dynamics that are diminishing the generation and cultivation of homing-in- community. External and internal cycles are interdependent and they constitute one complex dynamic in the real communal process of homing.

3.2.a. Dreaming-Planning

As previously stated, the communal Mission 2030 is important for the members. Every time they talked about it to me, they seemed happy about the result of the process and motivated by the power of doing things together. This mission is one of the most important and successful processes generated by the community members. Firstly, it showed that they have realized that there are several communal problems and they have therefore made some changes. Secondly, it confirmed that they already have well-built respectful communication skills and communal

facilitating tools such as deep listening and consensual decision making. And thirdly, it demonstrated to them that they do have the capacity to generate communal visions in a diverse medium, to generate consensual plans, and to work in groups.

Nevertheless, the main problem of the community has been to 'cross the threshold' from this consensual intention to a more practical, effective dynamic approach and on a recurrent basis. The main reason for this situation is that there is not enough motivation in the individual to pass from a disposition of passive respect and to establish a more active cooperative system of conversations. This is illustrated in three consequential aspects:

- Lack of participation: From a respectful basis, they have been able to hold Monday and Thursday meetings which, as several people recalled, have helped in self-facilitating communal planning and conflict resolution. However, the people who participate in these meetings, a member commented, are usually the same ones and they are relatively few in number.

- Low Individual commitment and an out of balance distribution of responsibilities: Keuruu's whole community organization is based on respect for the other's autonomy. However, this is challenged when we examine the individual participation and coordination of people in active/productive activities for the community. There are people who are totally committed to the community and therefore adopt many responsibilities and work hard. In contrast, many people have adopted a quite passive, almost indolent, disposition. They do not actively participate in communal DMP leaving others to become responsible for directing a communal path. They tend to do just what others ask them to do, and in one way or another, expect that things will get done naturally. A member of Keuruu commented to me: 'things here seem to be magically done'. Another older member said: 'we belong to a generation that works a lot; younger generations work less… [However] this cannot be said too loud here… there are people who believe that there is nothing to be done and that things go spontaneously…They move around the community without seeing the problems and things that must be done'.

- Lack of strategic planning: It has become really hard to generate more strategic and coordinated plans to make their dreams come true. A woman illustrates this situation as follows:

‘Last winter, I wanted to make an agenda of things that we could commit to do for this year based on our mission for 2030…but we could simply not chose anything that we could commit together and do it now; we could not make priorities and make the order of things… Although there are some implicit priorities such as finishing the restoration of an old building, there is almost no communal projects and shared priorities that we could commit and do as a group’.

3.2.b. Doing

The lack of consensual and coordinated organization has three practical effects:

- Low self-reliant and stable ecological economics: Social cooperative organization goes hand-in-hand with the development of a more self-reliant community in ecological and economic terms. They are interdependent.

Every time that the community has come together in a coordinated and cooperative basis, they have made a step towards self-reliance. The most emblematic example is their food system. There is an incipient and more-coordinated kitchen-group that has become stable in recent years. They purchase the food for the whole community and prepare breakfast and lunch everyday. Also, a large part of their summer vegetables are produced in the Community. However, the system is not really stable. People still fail to do their jobs in the kitchen and they have to be replaced by those who are simply more committed. Also, as previously reported, the oldest member of the community has been the only person to take charge of the vegetable garden. As three members informed me, ‘she is getting old…nobody has worked with her these years… nobody is taking her important job’. In general terms, after 13 years of existence, the community is still far from becoming more ecologically self-sufficient. Most of their ecological actions have been focused on reducing consumption and the purchase of more green energy but not in making a strategy to become more self-reliant. In this sense, the community has become stuck; it has stopped ‘feeding’ itself. It simply loses communal creativity and the power of action necessary to generate the way of life that people have consensually agreed to create, and as they defined it in their ‘Mission 2030’.

In economic terms, the community is highly dependant on external funding, particularly on benefits from the Finnish Government. Each member has to generate his own income and to pay a monthly fee to live in the community. This is the main source of income to the community. However, although the average age in the community is about 40 years, there is a high rate of unemployment. Very few people work outside and therefore many of the inhabitants live on public benefits. Furthermore, the community does not produce much income. Although they have a huge infrastructure with great potential for agronomical and eco-educational projects, they have not been able to take advantage of this and therefore they only get small profits from the guesthouse and from organizing some events. In contrast, as many people said, the low number of members and the lack of proper organization and motivation have made the maintenance of the place a difficult and stressful task. They have an association that runs communal projects and employs some community members who are paid by the Finnish Government. Most of the communal projects, such as the restoration of buildings, have been made possible using public funding. As some members commented to me, all this has created a very unstable communal economy that 'is not sustainable at all' and this prevents the realization of ecological projects that would contribute to them becoming more self-reliant.

- Loss of communal direction: Community actions (or implementation of projects) are mainly reduced to daily life issues disconnected from the generation of more emblematic and effective works. There is a big gap between daily life actions and the effective generation of the 'mission 2030'. Monday meetings, a member commented, have been mainly reduced to the definition of lists of works to be done in daily life. Therefore, work in the community has lost its communal direction—the energy of the community becomes diluted in many different actions with no clear communal intention, collaboration and coordination. The fact that each member is able to generate his own niche in the community defined by a peaceful and calm rhythm of homing is remarkable. But, it is done so individualistically that Keuruu becomes more a collection of individuals than a cooperative community—a cooperative cultivation of personal niches.

- Emergence of feelings of powerlessness and frustration: One member said to me: 'we are simply unable to generate long term projects. This community cannot do that...the community is

as its people are…I cannot do anymore'. Furthermore, the practical management and administration required to generate their projects has become tedious and stressful. As a woman who worked in the administration of the community told me, 'I think that we have done many things but everything is happening so slowly. So, it is very stressful because you only see things that have to be done and you forget the things that you have already done'. In this sense, 'mission 2030' seems to be coming a source of stress rather than a communal statement of intention that should give communal meaning and direction. In other words, frustration and stress are feelings that emerge from a lack of cooperative coordination that is clearly jeopardizing the conservation of the peaceful and calm rhythm of homing that implies living in the spontaneity of the present, aligned with personal needs and desires.

3.2.c. Celebration

The lack of communal strategic planning and individualistic implementation of projects suggests that the learned skills in the community are mostly personal and not communal—e.g. the actual situation in the community shows that the art of cultivating vegetables in this challenging climate will be lost to the community when the elderly woman stops working. People are not sharing their acquired skills. In other words, there is a significant lack of generation and cultivation of a collective knowledge that is fundamental to developing a system based on social and ecological (i.e. loving) conversations.

Several individual projects might generate, as we have seen earlier, personal gratification and a sense of being nested, of being-in-place. However, the lack of successfully implemented communal projects means that there are few communal moments of celebration. Community members are not experiencing the gratification that any successful communal project carries with it. The most important implication here, from a communitarian perspective, is that members lose motivation and commitment to the community. This lack of communal celebration is a source of low participation in communal meetings, incapacity to design communal strategies and define priorities, lack of implementation of individual projects, and the emergence of feelings of frustration and stress.

The earlier years in the community involved many negative experiences that, from a positive perspective, helped the individual to judge their unsustainable situation and to become aware of their eco-social dreams. But a socio-ecological community cannot be nourished mainly from negative situations. The lack of successful projects is certainly not helping to change these dynamics. Community members are losing the possibility to evaluate their actions as a group and may be collectively unaware that they have to change some unsustainable patterns.

3.2.d. Two Designed Projects that are Changing the Actual Situation

The GEN (General Ecovillage Network) European annual meeting, with the participation of more than 120 people, took place in Keuruu during the last week I was there. Before my arrival, the members had already developed a strategic plan to prepare the place. Two weeks after my arrival, people divided into coordinated groups (cleaning, preparation of kitchen and bedrooms, organization of meeting rooms, coordination of external volunteers, etc). Due to the important scale of the event, many of the members were really committed and worked quite hard for several days. It was truly effective work and lead to perfect implementation of the six-day-meeting. But most importantly, all of this produced a great communal feeling of joy and celebration during and after the meeting. They were very happy for the success of this communal practical project.

Another key project, aligned with the long-term communal intention of becoming an educational centre for sustainability, has been the planning process to run the Gaia Education and UNESCO program ‘Ecovillage Design Education’ (EDE). Several women in the community planned this project for an entire year and developed a pilot program in 2008 with quite successful results. This really lifted the motivation of the community and, during my visit, most of the members had a series of meetings to see how they could keep co-ordinately working on the implementation of this project. In the end, they consensually assessed and changed some aspects of the pilot-project, decided to run it again the next year and agreed to apply to Gaia Education and UNESCO to receive official certification to run the program. In practical terms the project will contribute to the eco-literacy process of the community members, facilitators and Finnish students, and generate work for the community, thereby helping the community to build on their intentions to become more ecologically and economically self-reliant from a truly respectful disposition.

4. Conclusion

As explored in Chapter 4, Keuruu Community exemplifies the necessary interdependence that exists between the cultivation of a respectful disposition towards the autonomy of the other and the community's capacity to generate consensual actions (or to live in intimately active cooperation) (Figure 7.19). On the one hand, the respectful disposition towards the other that has emerged in Keuruu ecovillage during the last years has become the emotional basis for the creation of cooperative and coordinated communal actions. On the other hand, the consensual planning and implementation of consensual and coordinated projects is a main source triggering a disposition of respect towards the communal medium. In practical terms, it encourages a feeling of motivation and commitment to participate in the community from a loving – i.e. respectful and cooperative – disposition, in which the personal niche (a feeling of being-in-place) becomes actively interwoven with other beings. However, as seen in Keuruu, a tension between the individual and the community emerges when this whole respectful-consensual cycle loses its fluidity. Respectful disposition towards the community minimises and the lack of consensual practical actions stops nourishing the emergence of socio-ecological dispositions.

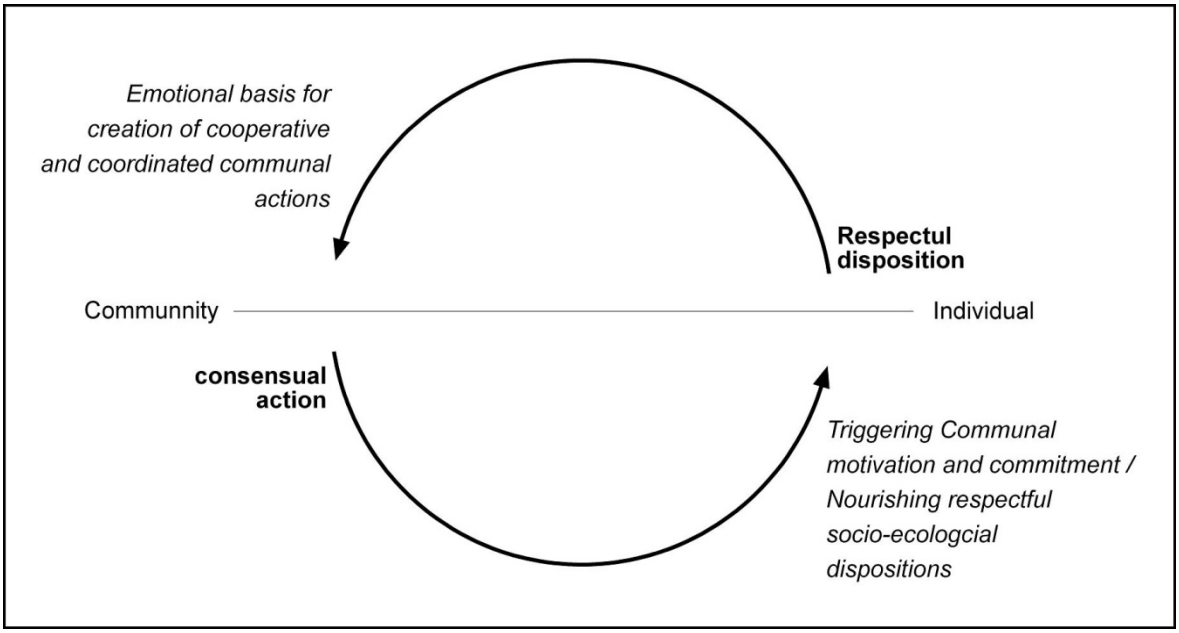

Figure 7.19: Interdependency between respectful and consensual (or coordinated) conversation

The latter point suggests that emotional dispositions that allow the constitution of an eco-social community, i.e. respectful-consensual conversations, must be cultivated everyday. Although Keuruu has generated a respectful social and ecological environment, it has been challenged and diminished because of the lack of enough recurrent cooperation necessary to live in community.

The case of Keuruu community contributes to the understanding that living in community implies more than just a passive respect. It is through intimate active collaboration (which is based on respect) that a communal process of homing can emerge and be sustained in time. In this process, ecologically designed projects become fundamental: (a)they are a main kind of conversation needed for the generation of effective and emblematic projects; (b) in order to be successful, they imply intimate social relationship (to be dreamed, planned, implemented and evaluated)—that is, designing ecological systems is part and parcel of living in an intimate-coordinated process of homing; and (c) they may become a platform for the generation and cultivation of a sense of togetherness and cooperation.

Keuruu ecovillage shows, both through negative and positive experiences that development of communal self-reliance in environmental and economic terms goes hand in hand with the establishment of a respectfully stable social system and the social power and creativity that can collectively emerge from it.

Field Research - Last Comments

Despite the increasing recognition that ecological design takes place through the complex and dynamic interdependency of social, ecological and spiritual aspects of human existence, there is still a significant lack of both clear methodologies and the conduction of practical researches in the field of design that consider and integrate these aspects holistically. The research and practice of ecological design is still very influenced by a technocratic paradigm that puts its efforts into the creation of new technology that, it assumes, would solve the environmental problems we are facing. However, understanding design as a mode of conversing, and ecological design as conversing-in-love, not only challenges this narrow, utilitarian attitude, but it also helps us to (1) understand what ecological design is in bio-socio-ecological terms and (2) develop more systemic and holistic research methods for its study. In relation to the first point, explaining ecological design as a mode of conversing has allowed me to leave behind several dichotomies such as mind-body, emotion-reason, culture-nature, inner-outer or private-public. Since the ecovillage movement, articulated through a huge diversity of particular communities, tends to be aware of these unsustainable dichotomies and to act accordingly, conducting a study of three ecovillages has significantly helped to reinforce my understanding of ecological design as a mode of conversing-in-love (or homing-in-love). In relation to the second point, the initiative of using the notion of conversation as the methodological bedrock for the study of ecological design in sustainable communities appears to be coherent, appropriate, and necessary. It seems to be aligned to the main paradigmatic postures of the ecovillage movement and to the practice of ecological design at community levels. However, this ethnographic research is just the first study that is explicitly aware of the notion of conversing (and homing), and therefore a complete programme of research – including the elaboration of clearer research methods – is needed in order to accurately describe and understand the practice of ecological design in current communities that are sustainably oriented. In terms of research methods, educating researchers of design to apply both qualitative and quantitative ethnographic tools seems to be fundamental to a correct application of this kind of research. In terms of research topics, this study has been focused on communities in relatively rural environments. Additional research on communities in

urban situations is equally (if not more) significant in a time in which most of the human population live in cities and many of our environmental problems are generated in urban and suburban lifestyles. Conducting research in both urban and rural sustainable communities may help us to see how their respective lifestyles and designed systems may inform each other, thereby providing the opportunity to design even more integrated systems, yet always from a bioregional perspective.

With regard to the main research question that informed this field research – *what is the role of ecological design in the holistic process of generating and conserving a sustainable community*? – the following general answer can be given not in a narrowly technocratic fashion but in bio-socio-ecological terms.

Designing technological apparatus, from rudimentary objects designed in the community to highly sophisticated systems designed outside the communities, is fundamental for the development of sustainable communities in the Western-European eco-culture. Members of sustainable communities, as shown in the three case studies, design many technological systems such as straw-bale buildings and organic food production, and use (or expect to use) highly designed technology such as photovoltaic panels, carbon-neutral heating systems or wind generators. But nevertheless, they are also emphatically showing that the creation and use of technology is neither primal nor enough for the emergence of sustainable communities. They know that technological innovation alone does not ensure sustainable lifestyles. They know that sustainability is not an artefact or a conglomeration of them, but rather a way of homing, a form of living. They see sustainable living in community in terms of dynamically and harmoniously integrating spiritual, social and ecological processes. Thus, through practice, they are showing that ecological design is part and parcel of this complex holism. In this sense, reducing ecological design to the creation of technological apparatus only is a dangerous error.

In this thesis I have stated that emotions command human intention and behaviour. I have also stated that, as a conversation, ecological design is mainly commanded by the emotioning of loving. Only if we love, I proposed, will we truly develop an ecological consciousness and

practice a truly ecological design. Now, by integrating the results of this ethnographic study with the already reviewed concept of ecological design in terms of loving and homing, it is possible to close the loop between design and emotions, or, more specifically, between sustainable community design and loving: emotion commands design processes, while design processes enhance the triggering of certain emotional dispositions. In its essence therefore, *the main role of ecological design in the constitution and conservation of sustainable communities is that, both thorough the process of designing and the use of designed systems, it facilitates a manner of homing that tends to enhance the cultivation of loving as a main emotioning that generates sustainable ways of homing.* In other words, on the one hand, the spontaneous emergence and cultivation of an ecological consciousness (or a loving emotional disposition) is the only human state, the essential Cognitive disposition, needed to design ecologically. On the other hand, designing ecological systems is a key process for the emergence of such a state of consciousness. There lies the so important role of ecological design.

The cultivation of a sustainable community – that is, a resilient community – is ultimately the ongoing cultivation of this loop—namely, what I have referred to as homing-in-love (or co-designing-in-love), in Chapters 4 and 5. As I have shown in the case studies, this closed loop may emerge and begin to be conserved through a first action of design, a first designed system that, operating as a platform that facilitates human conversing, treats the others as legitimate persons, thereby giving them the opportunity to reflect upon their current situation, to ask deeper questions, and to use their collective creativity. As a result of this, they might, for example, decide to improve the system that facilitated this reflective and creative process in the first instance, or to design another new system that would become part of their unique spiritual-socio-ecological communal organization. These new designed systems may not only function more appropriately in social and ecological terms and enhance personal spirituality, but also, once again, they may facilitate more reflective and creative processes…and so on… This way, a loving form of homing, a sustainable community, starts to be conserved with firm roots, dynamically and harmoniously coupled with the eco-system in which it exists.

Thus, as stated in Chapter 2, understanding ecological design as a platform of change and cultivation of our emotioning – of a form of conversing – rather that just a process of creating technological apparatus is vital for an appropriate use of design for the emergence of more sustainable communities. So, *any designer interested in starting or maintaining a sustainable community has to, first and foremost, focuses his attention on how he can contribute to enhance the triggering of emotional changes that allow the emergence of a more ecological consciousness in the individual.*

I have argued in this thesis that a radical change of lifestyle is required in mainstream society—namely, a new applied ethics socio-ecologically oriented. Ecovillages are contributing to this eco-cultural change, and are showing us that radical changes do not necessarily jeopardise a sense of well being – i.e. an interconnected sense of self and place, but actually tend to nourish it. However, ecovillages are neither a general and warranted model of sustainability, nor a representation of the limits of changes needed to live sustainably. Yet there lies their major contribution to our understanding of the process of creating sustainable communities. Four aspects learned in this field research are important to stress in this sense: (1) asking deep questions. It is necessary to ask deeper and deeper questions that challenge and ultimately transcend conventional barriers that have shaped the Western-European culture in epistemological and ethical terms. Ecologically designed systems, as part of a major communitarian process of homing, are themselves sources that facilitate reflective processes. (2) Learning by doing. Ecovillages are work-in-progress embedded in unique socio-ecological mediums. These communitarian experiences are the main factor for the definition, maintenance and improvement of a way of homing socio-ecologically oriented. The current lifestyles and the designed systems of each ecovillage may be usefully applied in other communities, but without losing the awareness that each community exists in its own spiritual, social and bioregional domains. (3) A spiritual-social-ecological living in community is cultivated, everyday, moment after moment. Ecological Design is not just planning and implementing a project, a future state, as usually assumed in conventional design. Rather, designing sustainable communities is part of a continuum, a process of homing, a dynamic in which the boundaries of planning, executing and

evaluating tend to disappear. (4) Although reacting to deep socio-ecological crises, creating sustainable communities has to be fun.

Concluding Thoughts

Four years has passed since, while resting on the summit of my Pochoco, I decided to embark on this journey replete with diverse questions, feelings, understandings and confusions. Now, it is time to stop my wandering for a moment… It is time to feel and reflect about what I have learnt as a result of writing this thesis.

I conceive this work as an *invitation* to myself, and also to you, the reader, to reflect about one of the most ancient yet nowadays truly necessary questions. I began this journey with the following personal enquiries: how should I participate in the society, the valley, the bioregion, and the biosphere in which I exist? How should I converse with myself, with the other inhabitants of the Mapocho valley and with those who exist beyond it? How should I deal with the complex network of spiritual, social and ecological crises that I can both see from the summit of my Pochoco and experience through the praxis of my living with myself and with others? How can I help in the constitution and cultivation of a more harmonious or sustainable world? Shortly after I initiated this journey I realized that these questions, and the issues they were referring to, were fundamentally ethical, and therefore my research had to be focused on that domain. I also realized that this ethical enquiry was ultimately about dealing with one of the most primal philosophical questions: what does it mean to be a human being.

I cannot know what, if anything, has changed in you from reading this thesis. Yet, I hope that it has helped you to reflect about your own socio-ecological queries, your own environmental ethics, and that, those reflections, will lead you to develop your own understanding of, and to initiate a pool of actions to, live a more harmonious life with the rest of Nature. From a personal perspective, my first sentiments in relation to what I have learnt in this process are ones that lead

me to *celebrate*[1]. Today, I feel more optimistic. While I am still impressed (and depressed!) by the high complexity and emergency of the unhealthy world that we have created, I can see a new epistemology, a new emotional disposition, and a new environmental ethics holistically flourishing here and there. Based on a phenomenological and bio-cognitive perspective of humanness, and adopting a view based on eco-cultural diversity, one of the most important reasons to celebrate is the realization that part of the core of the solution for the current socio-ecological crises resides precisely on the human capacity to reflect about these situations. It is in our humanness, or more exactly, in paying attention to our own particular embodied-ecological existence, where we will find the roots of and solutions to our crises. It is when we realize that we *are responsible* for the quality of our personal and relational lives that the change may start to emerge. In other words, I ultimately celebrate that I am becoming aware that, the eco-cultural world in which we live is a world created by us. We are participants and creators of this ecosphere, so, and this is the important point, in our hands rests the co-creation of a world that we would conceive spiritually, socially and ecologically sustainable. As beings-in-the-world, if we change, the world changes; and if the world changes, then we also change. In this sense, the painful network of crises we are facing becomes an *opportunity for deep reflection, imagination and creativity*. It is in this context in which, the formal research questions of this thesis – what is ecological design and what is its role in the emergence and constitution of sustainable communities? – appear to be both coherent and necessary. Becoming aware that ecological design is part and parcel of our eco-cultural world that is created moment after moment is an important step. Yet we still have to deal with an important question: how can we create a world in which our humanness and the rest of Nature can exist sustainably?

I started this research with the feeling that the assumption of design as a purely human rational action that plans and creates technology to develop a sort of ´built environment´ separated from a ´natural environment´ was somehow part of the cause and the effect of many of the socio-

[1] I would like to thank to John Croft who reminded me that, at the end of each project, we should never forget to celebrate what we have learnt; that celebrating is an essential constituent of any personal or communitarian project; that we should also celebrate the fact of becoming aware that finishing a project is ultimately the initiation of new one; and that celebrating the success of any project is ultimately about celebrating our own human existence.

ecological problems we are dealing with. In a culture reduced to technocratic approaches, an agitated designer, carrying the 'flag of innovation', would probably try to solve the 'call' of sustainability by unquestionably creating a more complex and 'efficient' technological apparatus. However, I felt that, more and more technological innovation without deep reflection would never solve the socio-ecological crises we have. I felt that, as a designer, I had to go much deeper and understand the basic dynamics of the ecology of humanness. In order to truly initiate a coherent explanation and practice of ecological design, overcoming the subject-object, mind-body and culture-nature separations was essential. I also began with the impression that, in order to understand the roots of our crises and to eventually start practicing ecological design, it was necessary to re-value our emotional and in-placed (or embodied-ecological) existence. Furthermore, I had the impression that the practice of ecological design was essentially about cultivating an intimate and cooperative form of making ourselves at home in the earth. Conducting an interdisciplinary and multidisciplinary research about the interconnection of (1) the epistemology of *Doing*, (2) the emotioning of *Loving*, and (3) the conscious practice of *Homing*, has been fundamental to convincing myself that my initial impressions were correct. By interrelating these three lines of investigation, a more holistic understanding of human ecology has been developed. By doing this, I have also been able to generate the bio-socio-ecological basis of a new synthesis of ecological design. In relation to the main formal question of this research, I can now say that my synthesis of the meaning and practice of ecological design[2] is, in a nutshell, *homing-in-love*. Let me comment on few points that have constituted this synthesis and that have also helped me to deal with my research questions.

In the hyper- functional and harried culture in which we live today, many people would probably expect me to finish this thesis by defining a clear pool of practical principles of ecological design to be universally applied in order to attain a sustainable lifestyle – a sort of clear, step-by-step, Platonic, ascending process to reach a universally pre-defined status (in this case, sustainability). Adopting this approach however, would be everything but socio-ecological, and far from

[2] Or also called natural design, green design, sustainable design, salutogenic design or deep design.

sustainable. Yearning for a definite answer, or ultimate practical principles or models of ecological design is just another proof of the deaf, 'myopic' and ultimately anti-ecological culture in which we exist. It overlooks any phenomenological and bio-cognitive basis of our existence—mainly, that the homeostasis of our lives occurs in a continuous embodied and in-placed 'structural coupling' with the world, and that our practices and explanations of everything emerge precisely from this unique, personal dynamics. Thus, if I had to define a sort of 'meta-principle' of ecological design it would be that *there is no definite and transcendental principle of ecological design to be 'discovered' or to be proposed.* Any attempt to declare universal statements and from there configure universal ´commandments´ is anti-ecological and Cognitively misleading. We do not need universal and therefore reductionist religions of ecology but rather diverse ecological spiritualities. So, any coherent proposition about ecological design should be based on the awareness of its embodied-ecological (or in phenomenological terms, 'experienced') basis. In this sense, every person, every social organization, should define its own vision and application of how to create a world sustainably. Sustainability then would spontaneously emerge, not as a fixed point in the future, but through the interconnection of essentially diverse and in-placed dynamics that occur in our ongoing present. In Naess' terms, it would be to create particular 'ecosophies'. This thesis is exactly that. It is part and parcel of my ecosophy P; it is part of an ecosophy that is not a set of definitive facts but an ongoing explanation of my ongoing pulse of life, and with the particular aim of reflecting on how to cultivate a sustainable relationship with the rest of Nature. My vision of ecological design, that is, has emerged, and is still emerging, from this unique pulse. That is why it is impossible to present it as a synthesis of universal or definite practical principles. This is also why I see this thesis in general, and its synthesis of homing-in-love in particular, as an invitation to each reader to reflect about and act from his own legitimate environmental ethics, from his own 'song'.

I have suggested that the basic Cognitive and ecological dynamics of our humanness is our *existence in conversation in an eco-cultural medium*. This explanation of human existence critically overcomes the Cartesian reason-emotion, mind-body, culture-nature dichotomies. Following Maturana, conversation has been understood as the continuous interplay between our

existence in languaging and emotioning – or what Lewis cognitively refers to as self-organizing 'appraisal-emotion amalgams'. Contrary to the Modern assumption of an incorporeal, abstract and symbolic language that separates us from the rest of Nature, language, although distinctly human, is profoundly rooted in our embodied and ecological dynamics. It emerged from, and therefore belongs to, our animal existence. Through languaging, we become self-conscious beings capable of explaining and coordinating our embodied-ecological experiences in which we find ourselves firmly immersed. A major change has also taken place in the understanding of emotions. By denying our emotions, by treating them as irrational and 'bestial' sensations which had to be controlled by the power of the 'incorporeal' reason, as assumed and taught by the modern epistemology, we are just cutting ourselves off from the very nature of our own humanity. In contrast, based on the work of some systemic scientists of emotion, I have synthesised emotions as embodied, self-organizing and Cognitive intentions that define particular modes of creating, relating with, and languaging in, the world. Emotions are vital Cognitive processes necessary to maintain our wellbeing and our lives. Thus, this ongoing interweaving of language and emotion – i.e. conversation – is the human way of relating with a medium, which in turn, emerges through our conversations.

I have also argued that we do not only converse with other human beings. We are not only social beings. The separation between the social and natural domains (or between the built and natural environments) is misleading. Our existence in conversation is deeply rooted in *a whole eco-cultural medium*, in a larger ecology. Human conversing arose from millions of years of being attuned with the ecology of life. Thus, every human relational activity, from climbing a hill, to praying to a God, from interacting with an insect to having dinner with the family, or from swimming in the sea to attending a lecture at school, is a human conversation. We are not just social beings but rather eco-social beings. Consequently our ongoing interaction with our mediums implies a continuous eco-enculturation of our emotions and our languages—it shapes a particular way or pattern of conversing. Briefly therefore, through conversations we learn to live in distinct ways and to create distinct worlds. Through conversations, an inner personality and an outer form of relating with a world are defined moment after moment. In biological terms,

conversing is the human Cognitive way of continuously maintaining our autopoiesis (or self-making organization) and our structural coupling (or adaptation) with a medium. In phenomenological terms it is the ongoing mechanism which Heidegger and Merleau-Ponty refer to as 'being-in-the-world'.

Realizing that we exist in conversation is also the Cognitive basis for our understanding of the practice of ecological design—or homing-in-love. I have stated that *to design is to converse.* Design is a human conversation about *facilitating* our existence in conversation. This implies, among other things, that every action of design is commanded by the embodied, self-organizing emotioning of the designer. It also implies that the practice of design unfalteringly defines and is defined by the eco-cultural medium in which the designer exists. Realizing this may be the starting point of a more ethical form of designing. It compels us first, to realize that the designer, wanted or not, is totally responsible for the kind of design he does, of the kind of world he perceives and creates; second, to realize that every human being, as a conversing agent, is a designer; third, to realize that every practice of design ineluctably has an effect on the quality of life of other human and non-human beings. Particular ways of designing contribute to the emergence of particular patterns of emotioning, which in turn lead to particular patterns of conversing in the world; fourth, if we want to understand the kind of design we generate, we have to primarily pay attention to our emotions. This implies that we need to pass from a quantitative and functional characterization and education of design, such as 'industrial design', 'graphic design' or 'media design', to a qualitative one, which elucidates its emotional intentions. This also implies re-valuing the importance of our embodied-ecological existence to give us the opportunity to re-learn the language of our emotionings, and to start listening to them—to feel them. Only by doing this will we be able to (1) understand which kind of emotions in general and conversations in particular have guided us to generate so much psycho-ecological destruction—i.e., to understand the roots of these crises; and (2) to give us the opportunity to re-learn which forms of conversing with the other – the rest of Nature – are the ones from which more sustainable or harmonious patterns of living may emerge.

Ecological design as *Homing-in-love is* based on these points. Briefly, homing in love is the synthesis of (1) the experience-based feeling and consciousness that the world that emerges through the praxis of our daily conversations is our home; and (2) the cultivation of a way of designing (or conversing, or homing) that is fundamentally respectful and cooperative—namely, co-designing-in-love. In other words, I have claimed that design only becomes ecological when it is mainly guided by the emotion of loving through the ongoing process of creating and cultivating our (sense of) being at home in the world.

Loving and homing form a circular causality. They are interdependent. This interdependency has a biological basis. Based on a synthesis of Maturana's 'biology of love' and Wilson's 'biophilia', I have argued that our humanness arose in an ecologically-socially centred environment through *loving* and *intimate* relationships. That is, a biocentric, close and intimate form of homing triggered the emergence and cultivation of a loving emotioning, and that loving emotioning in turn allowed a biocentric, close and intimate form of homing to emerge and be conserved. In other words, human beings are biologically loving-biophilic beings and if they do not love and are not loved they become physically, psychologically, socially and ecologically 'defective'—incapable of harmoniously feeling at home in the world. At the same time, it is through the intimacy of homing that we learn to love, and where our lives become emotionally, socially and ecologically rooted. We are born as loving beings but this does not ensure that we will love. In this sense, the essential task of human ecology, and that of ecological design, becomes clear: *to cultivate the process of homing-in-love*.

In a terminology more related to the field of design, ecological design as homing-in-love may be rephrased as the practice and state of consciousness that overcomes a purely technologically, rationally and transcendentally oriented form of acting, towards one of recovering both the *craftsmanship* and the *art* implicit in it.

I see craft as a mode of conversing with (or 'making') a world in which the embodied experiences of the designer and his explanation of those experiences are intimately interwoven in the flow of the present. Hands and head, making and planning, feeling and reflecting, touching

and comprehending, are deeply interlaced in the process of crafting. They form a whole, a circular dynamics. Ultimately, the whole, embodied and human-scale experience of crafting, that is, the ongoing relationship of the artisan with his world in the flow of the present, is an *aesthetical experience.* Through crafting we develop an aesthetical knowledge of ourselves and the world in which we live. Briefly by re-linking design with craft therefore, we are recovering the importance of aesthetic knowledge through practice.

In this sense, crafting epitomizes what I have referred to as the consciousness and practice of *homing*. In order to practice ecological design, it is necessary to re-value the importance of being in charge of the world in which we live, of being in charge of the essential needs of our lives, of being in charge of the every-day life; of, literally, being in charge of our *eco*s, homes. The ecological designer, as a craftsman, leaves behind a life of passive consumerism, as happens in our global and 'uprooted' Western culture, to one of active participation, imagination and creation. This is exactly what I have learnt from the three ecovillages I studied. They have understood the unhealthy practice of passive consumerism and 'uprootedness' and have therefore started to 'craft' the life they want to live. They are 'crafting' their food system, their energy system, their water systems, heating system, and their houses. They are 'crafting' social activities, jobs, duties, games and so on. They are 'crafting' their own economy—their own way *of administrating their homes*. By doing this, that is, by *learning-by-doing*, an 'aesthetical knowledge', which in ecological terms is the *knowledge of the home*, continually emerges and is cultivated. By crafting our homes we will re-learn the language of the landscape, of the different beings that inhabit it with us. This way, we become 'ecologically literate', bio-regionally in-placed. We also have a better control of ecosystem feedbacks of our actions; we become responsible for the ecological effects of our actions. There is an enhancement of social and ecological diversity in a local and global scale. We become more self-reliant; and set the basis for a direct and participatory form of democracy. Furthermore, and probably most importantly, the knowledge of aesthetics (or homing) is also a *spiritual knowledge*. By recovering the practice of homing we may recover a feeling of belonging to a major world, a world of intimate interactions, a sense that Nature is both inside and outside our existence. In other words, by intimately crafting

the essential needs of our lives, we are ultimately cultivating our own *fire-pit*—the core of the sacred, the social and the ecological—the core of an ecological consciousness.

In terms of art, ecological design is also about paying careful attention to and communicating with our feelings. Art is, first and foremost, an expression of emotions and feelings. It is a form of experiencing, examining and reflecting on how we feel in the world we live. Unfortunately, art has been strongly neglected by a culture preoccupied with 'more important functional matters'. By doing this however, it has forgotten that art is probably one of the most necessary and 'functional' of human activities: the cultivation of consciously feeling our emotions and the world in which we live and therefore understanding their dynamics. Furthermore, our Western-European culture has generated a form of conversing that is based on socially and ecologically destructive emotions—arrogance, vanity, aggression—which have lead us to ultimately negate our own humanness. In this sense, recovering the practice of art is fundamental.

I have suggested that art becomes socially and ecologically oriented when it is commanded by the emotion of loving. This is the 'art of loving'. The art of loving is not only about spontaneously accepting our ongoing embodied-ecological existence, but also about acting accordingly. It is about consciously and spontaneously living melodiously aligned with the flow of the present, with one's ongoing embodied states, with the endless wandering of the Rest of Nature. The art of loving allows us to *craft* our homes with the rhythm and pulse of Nature—our Nature.

The core of our unsustainable life is the *loss of love or biophilia*, the loss of the art of loving of oneself and the other. Sustainability is an emergent property of homing-in-love. We should not understand sustainability as a state to be reached or attained, a fixed point somewhere in the future, as commonly proposed in political discourses and by many authors about sustainability. As homing-in-love, sustainability is a process that must be cultivated moment after moment, day after day…slowly… We will never live sustainably if we keep living in such a hurry, preoccupied to rapidly reach a pre-defined state. Sustainability belongs to the domain of the

present, not the future. It emerges and is conserved as we wander aligned with our mediums in the flow of the present—the art of homing-in-love.

It is at that moment, in the art of loving, when our form of relating with a world, becomes *ethical*. I have argued that environmental ethics only emerges from loving. A loving disposition implies attentively listening to oneself and to the other. Rather than talking or proposing or planning, *attentive listening is the first and most important action of ecological design*. By listening we can approach ourselves and the other and therefore initiate an intimate dialogue. Ecological design implies designing with the other for the other's own sake. Love is the only emotion that allows for this because it opens our views to attentively 'bring forth', to know and to respect both the constitutive characters of the beloved and the ecological medium in which it exists. But the ecology of love also implies loving oneself for one's own sake—namely, one's individual existence and the medium in which one exits. In emotional terms therefore, ecological design is fundamentally cooperative. It is co-creation, co-facilitation; it is *co-designing in love*. Co-designing in love is not about designing *for* others, for a mass, but *with* oneself and the other. This is the other important phenomenon I have learnt from my case studies. In order to design ecologically, the members of these ecovillages are cultivating the art of listening. They are dealing with internal and external challenges and conflicts by respecting the perspective of the other and nourishing consensual forms of creation.

Furthermore, I have suggested that love is essentially expansive. Consensual-cooperative relationship is also the source of becoming aware of one's inhabitation of a world constituted by a complex network of other communities and eco-systems, and thereby acting with respect towards them. Homing-in-love is not isolation from the rest of the world, but a form of participating in this complex and diverse network with respect towards differences and far realities.

Thus by re-linking design with the practice of *crafting* in the flow of the present and the cultivation of the *art* of loving, ecological design can also be explained as that precise moment *when aesthetic and ethics become a whole*. The intimate and dynamic interplay of the aesthetical

practice with the ethical reflection is the basis for the emergence of what I have referred to as natural or ecological consciousness—the experience-based awareness that self-love, the love of other human beings, and the love of the rest of Nature are ineluctably interdependent. No sustainability will ever emerge if we do not re-establish an intimate and recurrent conversation with the rest of Nature.

The real change emerges from the fire-pit. It is with us, within our bodies and ecologies, with our families, neighbours and local governments, and with those animals, plants, rivers and seas that dwell with us, where the seed of real change germinates.

Understanding the dynamics of loving is important to realizing that we cannot design love. We can only design *in* love. Yet, by practicing the intimate experience of home (or aesthetics), and by ethically reflecting about our situations, a more established pattern of loving may be initiated, and a more sustainable lifestyle can be conserved. What should we do then? We should create our own sustainable communities. As a first step, we should design platforms of conversation that facilitate and encourage the emergence of ecological consciousness—of reflection and action. These platforms are the design of systems that treat the other as an authentic being and invite it to reflect and act from its own perspective in the cooperative company of other humans and non-humans who inhabit its niche. These are platforms that invite both human and non-human participants to co-create a cooperative form of homing. I can say no more about how and what these platforms should be. They must be created and cultivated by the beings who participate in these platforms of conversations and be shaped by the bioregional mediums in which they live. In the three case studies I have examined different and particular designed platforms of conversation which are nourishing in-place forms of sustainable living in a global age. Having the possibility of learning from others is one of the greatest aspects of our global scenario. Yet developing the art of homing-in-love, and that of creating sustainable communities, has to emerge and be organized, from the bottom up. It must come from ourselves and our immediate fire-places. This is my invitation to all of us.

Next Step

Human beings are immersed in an ongoing process of learning. Homing-in-love in general, is in itself an educational process, or more precisely, a particular form of learning. Thus, my synthesis of ecological design is also a synthesis of sustainable education. As educators, the task we have is to put into practice a holistic form of learning-by-doing, and using the method of respectful and cooperative conversation. We need to change the current way of education in pre-school, schools, colleges and universities, and in every informal manner of education. As ecological design, the most important action of the educator is not to talk, or give lectures, but to listen. Only then teacher and student will be able to learn from each other, to generate a 'natural conversation'. I take this challenge as my next project. Now, I go back to my Pochoco, a Pochoco that, after this journey, has a much more complex and large ecological consciousness. From there, my intention is to work on the endless process of 'ecological literacy' needed to cultivate harmonious or sustainable forms of homing.

Unfortunately, social and ecological sustainability has been theoretically and practically developed mainly from and to 'first-world' (or 'developed') socio-economic systems (e.g. Western European countries and wealthy social systems), thereby generating policies and practices that, in many cases, are socially, ecologically and economically incongruent and unreachable for 'third-world' countries and their particular local communities and bioregions. If a more sustainable form of living in a global age is intended, it is imperative that we start thinking, facilitating and practicing sustainability from and to socio-ecological systems in less developed countries and local communities, both in academic and practice-based terms. Thus, in practical terms, going back to my Pochoco also means, (1) to facilitate Chilean communities (e.g., urban slums, indigenous communities, rural communities, and local municipalities/governments) to develop their own socio-ecological transitions from which more sustainable forms of homing may emerge; (2) to conduct interdisciplinary and multidisciplinary research about the notion of sustainability in the Latin American context in general, and in Chilean local communities in particular; and (3) to design social, ecological systems (i.e. platforms) based on local-communitarian contexts. All this will be integrated in what, at the moment, I call the Centre of

Local Sustainability. I hope this new project will help me to keep learning the language of the Mapocho river and that of the two condors that were awaiting me at the summit of the Pochoco when I was a child.

References

Aberley, Doug. “Interpreting Bio-regionalism: A Story from Many Voices.” In *Bioregionalism*, edited by Michael V. McGinnis. Routledge, 1999.

Abram, David. *The Spell of the Sensuous: Perception and Language in a More-Than-Human World*. Vintage Books, 1996.

Aristotle. *Aristotle’s Physics, Books III and IV*. Translated by Edward Hussey. Clarendon Press, 1983.

———. *Aristotle’s Physics.* Translated by W. Ross. Oxford University Press, 1936.

———. *The Nicomachean Ethics*. Translated by W. David Ross. Oxford: Oxford University Press, 2009.

Armon-Jones, C. “The Thesis of Constructionism.” In *The Social Construction of Emotion*, edited by Rom Harré. Blackwell, 1986.

Assadourian, Erik. “Engaging Communities for a Sustainable World.” In *State of the World 2008: Innovations for a Sustainable Economy: a Worldwatch Institute Report on Progress Toward a Sustainable Society*. Earthscan, 2008.

Babe, Robert E. *Culture of Ecology: Reconciling Economics and Environment*. University of Toronto Press, 2006.

Badhwar, Neera K. “Friends as Ends in Themselves.” In *Eros, Agape, and Philia: Readings in the Philosophy of Love*, edited by Alan Soble. Paragon House, 1989.

———. “Love.” In *The Oxford Handbook of Practical Ethics*, edited by Hugh LaFollette. Oxford: Oxford University Press, 2003.

Barton, Hugh, ed. *Sustainable Communities: The Potential for Eco-Neighbourhoods*. Earthscan, 2000.

Bateson, Gregory. *Mind and Nature: A Necessary Unity*. Fontana, 1980.

———. *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. Aylesbury: Intertext, 1972.

Bateson, Gregory, and Rodney E. Donaldson. *A sacred Unity: Further Steps to an Ecology of Mind*. HarperCollins, 1991.

Berg, Peter, and Raymond Dasmann. “Reinhabiting California.” *The Ecologist* 7, no. 10 (n.d.): 399-401.

Bernard, Harvey Russell. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. 4th ed. Rowman Altamira, 2006.

Berry, Wendell. “A Native Hill.” In *At Home on the Earth: Becoming Native to our Place : a Multicultural Anthology*, edited by David Landis Barnhill. 1999: University of California Press, n.d.

———. “The Way of Ignorance.” In *The Virtues of Ignorance: Complexity, Sustainability, and the Limits of Knowledge*, edited by Bill Vitek and Wes Jackson. The University Press of Kentucky, 2008.

Blunt, Alison, and Robyn M. Dowling. *Home*. Routledge, 2006.

Bodenheimer, Friedrich Simon. *Aristotle the Father of Animal Ecology*. Consejo Superior de Investigationes Cientificas, 1954.

Bollnow, O. F. “Lived-Space.” Translated by Dominic Gerlach. *Philosophy Today* 5, no. 1/4 (1961): 31-39.

Bowlby, Sophie, Susan Gregory, and Linda McKie. “‘Doing home’: Patriarchy, Caring, and Space.” *Women’s Studies International Forum* 20, no. 3 (1997): 343-350.

Bratton, Susan P. “Loving Nature: Eros or Agape?,” *Environmental Ethics,* 14,, no. 1 (1992): 3-25,.

Brink, David O. “Eudaimonism, Love and Friendship, and Political Community.” *Social Philosophy and Policy* 16, no. 1 (1999): 252-289.

Burtt, Edwin Arthur. *The Metaphysical Foundations of Modern Science*. Routledge, 2000.

Callicott, J. Baird. *In Defense of the Land Ethic: Essays in Environmental Philosophy*. SUNY Press, 1989.
Capra, Fritjof. *The Web of Life: A New Synthesis of Mind and Matter*. HarperCollins, 1996.
Casey, Edward S. *Getting Back Into Place: Toward a Renewed Understanding of The Place-World*. Indiana University Press, 1993.
———. *The Fate of Place: a Philosophical History*. University of California Press, 1997.
Chamberlin, Shaun. *The Transition Timeline: For a Local, Resilient Future*. Green Books, 2009.
Charlton, Noel G. *Understanding Gregory Bateson: Mind, Beauty, and the Sacred Earth*. SUNY Press, 2008.
Chihuailaf Nahuelpan, Elicura. *Message to Chileans*. Translated by Celso Cambiazo. Trafford Publishing, 2009.
Christian, Diana Leafe. *Creating a Life Together: Practical Tools to Grow: Ecovillages and Intentional Communities*. New Society Publishers, 2003.
Cobb, Edith. *The Ecology of Imagination in Childhood*. Columbia University Press, 1977.
Cooper, John M. "Aristotle on Frienship." In *Essays on Aristotle's Ethics*, edited by Amélie Oksenberg Rorty. Berkeley: University of California Press, 1980.
Costanza, Robert, Joshua Farley, and Ida Kubiszewski. "Adapting Institutions for Life in a Full World." In *State of the World 2010: Transforming Cultures: From Consumerism to Sustainability*. W. W. Norton and Company, 2010.
Croft, John. "Dragon Dreaming: The Art and Science of Running Exceptionally Successful Organizations and Projects for the Great Turning". unpublished document, 2009.
Daly, Herman E. *Beyond Growth: The Economics of Sustainable Development*. Beacon Press, 1997.
Daly, Herman E., and Joshua C. Farley. *Ecological Economics: Principles and Applications*. Island Press, 2004.
Damasio, Antonio R. *Descartes' Error: Emotion, Reason and the Human Brain*. Picador, 1995.
———. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. 1st ed. W. Heinemann, 1999.
Davidoff, Leonore, and Catherine Hall. *Family Fortunes: Men and Women of the English Middle Class, 1780-1850*. Routledge, 2002.
Dawson, Jonathan. *Ecovillages: New Frontiers for Sustainability*. Schumacher Briefings. Green Books, 2006.
Dell, Paul F. "Understanding Bateson and Maturana: Toward a Biological Foundation for the Social Sciences." *Journal of Marital and Family Therapy* 11, no. 1 (1985): 1-20.
Dilman, İlham. *Love: its Forms, Dimensions and Paradoxes*. Macmillan, 1998.
Donne, John. *No Man is an Island*. Souvenir Press, 1988.
Douthwaite, R. J. *Short Circuit: Strengthening Local Economies for Security in an Unstable World*. Green Books, Lilliput Press, 1996.
Dreyfus, Hubert L. *Being-in-the-World: a Commentary on Heidegger's Being and Time, Division I*. MIT Press, 1991.
Ehrenfeld, John R. *Sustainability by Design: a Subversive Strategy for Transforming Our Consumer Culture*. Yale University Press, 2008.
Farnish, Keith. *Time's up!: an Uncivilized Solution to a Global Crisis*. Green Books, 2009.
Fisher, Helen. *Why We Love: The Nature and Chemistry of Romantic Love*. Holt Paperbacks, 2004.
Fisher, Mark. *Personal Love*. Duckworth, 1990.
Foley, William A. *Anthropological Linguistics: an Introduction*. Wiley-Blackwell, 1997.
Frankfurt, Harry G. *The Reasons of Love*. Princeton University Press, 2004.
Freeman, Walter. "Emotion is Essential to all Intentional Behaviors." In *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, edited by Marc D. Lewis and Isabela Granic. Cambridge University Press, 2000.
———. *How Brains Make up their Minds*. Maps of the mi. Weidenfeld & Nicolson, 1999.
Fromm, Erich. *The Art of Loving*. Thorsons, 1995.
Fustel de Coulanges. *The Ancient City: A Study on the Religion, Laws, and Institutions of Greece and Rome*. BiblioBazaar, LLC, 2008.
Galeano, Eduardo. *Memoria Del Fuego*. Vol. 3. 3 vols. Siglo Veintiuno Editores, 1982.

Galtung, Johan. “Self-reliance: Concepts, Practice and Rationale.” In *Self-Reliance: A Strategy for Development*, edited by Johan Galtung and Preiswerk O’Brien R. IDS, 1980.
“Gemeinschaftlich Nachhaltig - Unikassel Versitat”, October 2010. http://www.usf.uni-kassel.de/glww/index.htm.
Gerhardt, Sue. *Why Love Matters: How Affection Shapes a Baby’s Brain*. Routledge, 2004.
Goldstein, Bruce Evan. “Combining Science and Place-Based Knowledge: Pragmatic and Visionary Approaches to Bioregional Understanding.” In *Bioregionalism*, edited by Michael V. McGinnis. Routledge, 1999.
Guidano, V. F. *The Self in Process: Toward a Post-Rationalist Cognitive Therapy*. Guilford Press, 1991.
Hammersley, Martyn, and Paul Atkinson. *Ethnography: Principles in Practice*. Second. Routledge, 1995.
Handwerker, W. Penn. *Quick Ethnography*. Altamira Press, 2001.
Harries-Jones, Peter. *A Recursive Vision: Ecological Understanding and Gregory Bateson*. University of Toronto Press, 1995.
Harris, Jonathan M., ed. *Rethinking Sustainability: Power, Knowledge, and Institutions*. University of Michigan Press, 2003.
Harris, Paul L. “Children’s Understanding of Emotion.” In *Handbook of Emotions*, edited by Michael Lewis and Jeannette M. Haviland-Jones. 2nd ed. Guilford Press, 2000.
Heidegger, Martin. “Building Dwelling Thinking.” In *Poetry, Language, Thought*. Harper & Row, 1971.
Helm, Bennet W. *Love, Friendship, and the Self: Intimacy, Identification, and the Social Nature of Persons*. Oxford University Press, 2010.
Hess, David J. *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States*. MIT Press, 2009.
Hester, Randolph T. *Design for Ecological Democracy*. 1st ed. The MIT Press, 2006.
Hillman, James. *City and Soul*. Spring Publications, Inc., 2006.
Hopkins, Rob. *The Transition Handbook: From Oil Dependency to Local Resilience*. Green Books, 2008.
Hughes, Johnson Donald. *Ecology in Ancient Civilizations*. The University of New Mexico Press, 1975.
Hume, David. *A Treatise of Human Nature*. NuVision Publications, LLC, 2008.
Husserl, Edmund. *Cartesian Meditations. An Introduction to Phenomenology*. Translated by Dorion Cairns. The Hague, 1960.
———. *Ideas: General Introduction to Pure Phenomenology*. Translated by W.R. Boyce Gibson. Library of Philosophy. Allen and Unwin, 1931.
Ingold, Tim. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. Routledge, 2000.
Irigaray, Luce. *The way of love*. Translated by Heidi Bostic and Stephen Pluháček. Continuum International Publishing Group, 2002.
Izard, Carroll E. *The Psychology of Emotions*. Plenum Press, 1991.
Jackson, Hildur. “Ecovillage Design Patterns.” In *Ecovillage Living: Restoring the Earth and her People*, edited by Hildur Jackson and Karen Svensson. Green Books, 2002.
Jackson, Ross. “The Ecovillage Movement.” *Permaculture Magazine*, no. 40 (2004): 25-30.
Jackson, Wes. *Becoming Native to this Place*. Counterpoint, 1996.
Jeanrond, Werner G. *A Theology of Love*. T & T Clark, 2010.
Johannessen, Helene, and Birgitte Simonsen. “Self-Government at the Svanholm Collective--Learning by Doing.” *International Journal of Leadership in Education* 1, no. 4 (1998): 357-77.
Johnston, Ronald John, Gregory Derek, Geraldine Pratt, and Michael Watts. *The Dictionary of Human Geography*. Fourth Edition. Blackwell Publishing Ltd, 2000.
Joubert, Kosha A., and Robin Alfred, eds. *Beyond you and me: Inspirations and Wisdom for Building Community*. Permanent Publications, 2007.
Kahn, Peter H., and Stephen R. Kellert, eds. *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*. MIT Press, 2002.

Katcher, Aaron, and Gregory Wilkins. “Dialogue with Animals: Its Nature and Culture.” In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.
Kellert, Stephen R. “Experiencing Nature: Affective, Cognitive, and Evaluative Development in Children.” In *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, edited by Peter H. Kahn and Stephen R. Kellert. MIT Press, 2002.
———. *Kinship to Mastery: Biophilia in Human Evolution and Development*. Island Press, 1997.
———. “The Biological Basis for Human Values of Nature.” In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.
Kellert, Stephen R., and Edward O. Wilson, eds. *The Biophilia Hypothesis*. Island Press, 1993.
Kemper, Theodore D. “Social Models in the Explanation of Emotions.” In *Handbook of Emotions*, edited by Michael Lewis and Jeannette M. Haviland-Jones. Second Edition. The Guilford Place, 2000.
Kenny, Anthony John Patrick. *Action, Emotion and Will*. Second Edition. Routledge, 2003.
Kenrick, Douglas T. “A Dynamical Evolutionary View of Love.” In *The New Psychology of Love*. Yale University Press, 2006.
Kierkegaard, Søren. *Works of Love*. Translated by Howard Hong and Edna Hong. Harper Perennial Modern Thought, 2009.
Laessoe, Bo. “Self-Sufficiency and Production at Svanholm.” In *Ecovillage Living: Restoring the Earth and Her People*, edited by Hildur Jackson and Karen Svensson. Green Books, 2002.
Laszlo, Ervin. *The Chaos Point: The World at the Crossroads*. Piatkus Books Ltda, 2006.
Leckman, James F., Sarah B. hrdy, Eric B. keverne, and C. Sue Carter. “A Biobehavioral Model of Attachment and Bonding.” In *The New Psychology of Love*, edited by Robert J. Sternberg and Karin Weis. Yale University Press, 2006.
Leopold, Aldo. *A Sand County Almanac: With Essays on Conservation from Round River*. Ballantine Books, 1990.
Lewis, Marc D. “Bridging Emotion Theory and Neurobiology Through Dynamic Systems Modeling.” *Behavioral and Brain Sciences* 28, no. 2 (2005): 169-194.
———. “Emotional Self-organization at Three Time Scales.” In *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, edited by Marc D. Lewis and Isabela Granic. Cambridge University Press, 2000.
Lewis, Marc D., and Isabela Granic. “Introduction: a New Approach to Study of Emotional Development.” In *Emotion, Development, and Self-Organization: Dynamic Systems Approaches to Emotional Development*, edited by Marc D. Lewis and Isabela Granic. Cambridge University Press, 2000.
Lyon, Margot L. “Emotion, Embodiment, and Agency: The Place of a Social Emotions Perspective in the Cross-Disciplinary Understanding of Emotional Processes.” In *Emotions as Bio-cultural Processes*, edited by Bigitt Röttger-Rössler and Hans J. Markowitsch. Springer Science, 2008.
Magwood, Chris, Peter Mack, and Tina Therrien. *More Straw Bale Building: A Complete Guide to Designing and Building with Straw*. New Society Publishers, 2005.
Manzo, Lynne C. “Beyond House and Haven: toward a Revisioning of Emotional Relationships with Places.” *Journal of Environmental Psychology* 23, no. 1 (2003): 47-61.
Maturana, Humberto. “Biología del Tao o el Camino del Amar.” In *Habitar Humano: En Seis Ensayos de Biología-Cultural*, edited by Ximena Y. Dávila and Humberto Maturana. J. C. Sáez, 2008.
———. “Biology of Cognition.” In *Autopoiesis and Cognition: The Realization of the Living*, edited by Humberto Maturana and Francisco J Varela, 1-58. Dordrecht: Reidel, 1980.
———. *El Sentido de lo Humano*. J. C. Sáez, 2005.
———. *Emociones y Lenguaje en Educación y Política*. J. C. Sáez Editor, 2005.
———. “Man and Society.” In *Autopoiesis, Communication, and Society: The Theory of Autopoietic Systems in the Social Sciences*. Campus, 1980.
———. “Ontology of Observing: The Biological Foundations of Self-consciousness and the Physical Domain of Existence.” *Unpublished Document, University of Chile, Santiago* (1986).

———. “Reality: The Search for Objectivity, or the Quest for a Compelling Argument.” *The Irish Journal of Psychology* 9, no. 1 (1988): 25-82.
———. “The Organization of the Living: A Theory of the Living Organization.” *International Journal of Human-Computer Studies* 51 (Received in 1974 1999): 149-168.
Maturana, Humberto, and Ximena Y. Dávila. *Habitar Humano: En Seis Ensayos de Biología-Cultural*. J. C. Sáez, 2008.
Maturana, Humberto, and Jorge Mpodozis. “The Origin of Species by Means of Natural Drift.” *Revista Chilena de Historia Natural* 73, no. 2 (2000).
Maturana, Humberto, and Bernhard Poerksen. *From Being to Doing: The Origins of the Biology of Cognition*. Carl Auer Verlag, 2004.
Maturana, Humberto, and Francisco J. Varela. *Autopoiesis and Cognition: The Realization of the Living*. Reidel, 1980.
———. “Autopoiesis: The Organization of the Living.” In *Autopoiesis and Cognition: The Realization of the Living*. Reidel, 1980.
———. *The Tree of Knowledge: The Biological Roots of Human Understanding*. New Science Library, 1987.
Maturana, Humberto, and Gerda Verden-Zoller. *Amor y Juego: Fundamentos Olvidados de lo Humano*. 6th ed. J. C. Sáez, 2003.
———. *The Origin of Humanness in the Biology of Love*. Imprint Academic, 2008.
Mayumi, Kōzō. *The Origins of Ecological Economics: the Bioeconomics of Georgescu-Roegen*. Routledge, 2001.
McCamant, Kathryn, Charles Durrett, and Ellen Hertzman. *Cohousing: A Contemporary Approach to Housing Ourselves*. Habitat Press, 1988.
McDonough, William, and Michael Braungart. *Cradle to Cradle: Remaking the Way We Make Things*. North Point Press, 2002.
McFague, Sallie. *Super, Natural Christians: How We Should Love Nature*. SCM Press, 1997.
McIntosh, Alastair. *Rekindling Community: Connecting People, Environment and Spirituality*. The Schumacher Briefings. Green Books for the Schumacher Society, 2008.
McKeon, Michael. *The Secret History of Domesticity: Public, Private, and the Division of Knowledge*. The Johns Hopkins University Press, 2005.
McLaughlin, Corinne, and Gordon Davidson. *Builders of the Dawn: Community Lifestyles in a Changing World*. Book Pub. Co., 1990.
Merleau-Ponty, Maurice. *Phenomenology of Perception*. Routledge & Kegan Paul, 1962.
Miller, Alan. *Environmental Problem Solving: Psychosocial Barriers to Adaptive Change*. Springer, 2003.
Milton, Kay. *Loving Nature: Towards an Ecology of Emotion*. Routledge, 2002.
———. “Meanings Feelings and Human Ecology.” In *Mixed Emotions: Anthropological Studies of Feeling*, edited by Kay Milton and Maruška Svašek. Berg, 2005.
Murphy, Pat. *Plan C: Community Survival Strategies for Peak Oil and Climate Change*. New Society Publishers, 2008.
Myers, Olin Eugene, and Carol D. Saunders. “Animals as Links toward Developing Caring Relationships with the Natural World.” In *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, edited by Peter H. Kahn and Stephen R. Kellert. MIT Press, 2002.
Nabhan, Gary Paul, and Stephen Trimble. *The Geography of Childhood*. Beacon Press, 1994.
Naess, Arne. *Ecology, Community, and Lifestyle: Outline of an Ecosophy*. Translated by David Rothenberg. Cambridge University Press, 1990.
Neruda, Pablo. *Canto General*. Translated by Jack Schmitt. University of California Press, 1991.
Nicholsen, Shierry Weber. *The Love of Nature and the End of the World: The Unspoken Dimensions of Environmental Concern*. MIT Press, 2003.
Nozick, Robert. “Love’s Bond.” In *The Examined Life: Philosophical Meditations*, 68-86. Simon & Schuster, 1989.
Nygren, Anders. *Agape and Eros*. Translated by Philip S Watson. SPCK, 1982.
“Ökodorf Sieben Linden Web Page.” *Ökodorf Sieben Linden*, September 2010. http://siebenlinden.de/.
Orr, David W. “Love it or Lose it: The Coming Biophilia Revolution.” In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.

———. *The Nature of Design: Ecology, Culture, and Human Intention*. Oxford University Press, 2002.
Orr, David W. *Down to the Wire: Confronting Climate Collapse*. Oxford University Press, 2009.
———. *Ecological Literacy: Education and the Transition to a Postmodern World*. SUNY Press, 1992.
Outka, Gene Harold. *Agape: An Ethical Analysis*. New Haven, Conn: Yale University Press, 1972.
Panksepp, Jaak. *Affective Neuroscience: the Foundations of Human and Animal Emotions*. Oxford University Press, 2004.
"Patagonia Chilena ¡Sin Represas!", n.d. http://www.patagoniasinrepresas.cl/final/index.php.
Peterson, Garry, Craig R. Allen, and C. S. Holling. "Ecological Resilience, Biodiversity, and Scale." In *Foundations of Ecological Resilience*, edited by Lance H. Gunderson, Craig R. Allen, and C. S. Holling. Island Press, 2009.
Planalp, Sally. *Communicating Emotion: Social, Moral, and Cultural Processes*. Cambridge University Press, 1999.
Plato. *The Collected Dialogues of Plato, Including the Letters*. Translated by Edith Hamilton and Huntington Cairns. 2nd ed. New York: Pantheon Books, 1963.
Price, A. W. *Love and Friendship in Plato and Aristotle*. Clarendon, 1989.
Princen, Thomas. *Treading Softly: Paths to Ecological Order*. MIT Press, 2010.
Pyne, Stephen J. *Fire: a Brief History*. University of Washington Press, 2001.
Restany, Pierre. *Hundertwasser: The Painter-king with the Five Skins*. Taschen, 2001.
Roseland, Mark. *Toward Sustainable Communities: Resources for Citizens and Their Governments*. New Society Publishers, 2005.
Rozzi, Ricardo. "Biodiversity and Social Well-being: The Case of South America." In *Encyclopedia of Life Support Systems (EOLSS)*. UNESCO-EOLSS, 2003. http://www.eolss.net/.
Saarni, Carolyn. "The Social Context of Emotional Development." In *Handbook of Emotions*, edited by Michael Lewis and Jeannette M. Haviland-Jones. 2nd ed. New York: Guilford Press, 2000.
Sale, Kirkpatrick. *Dwellers in the Land: The Bioregional Vision*. New Society Publishers, 1991.
———. *Human Scale*. Secker & Warburg, 1980.
Schehr, Robert C. *Dynamic Utopia: Establishing Intentional Communities as a New Social Movement*. Bergin & Garvey, 1997.
Schumacher, E. F. *Small is Beautiful*. Abacus, 1974.
ScottHanson, Chris, and Kelly ScottHanson. *The Cohousing Handbook: Building a Place for Community*. New Society Publishers, 2005.
Sebba, Rachel. "The Landscapes of Childhood." *Environment and Behavior* 23, no. 4 (July 1, 1991): 395 -422.
Sheffield, Frisbee C. C. *Plato's Symposium: The Ethics of Desire*. Oxford classical monographs. Oxford University Press, 2006.
Shenker, Barry. *Intentional Communities: Ideology and Alienation in Communal Societies*. Routledge & Kegan Paul, 1986.
Shepard, Paul. *Coming Home to the Pleistocene*. Edited by Florence R. Shepard. Island Press, 1998.
———. "On Animal Friends." In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.
Shuman, Michael. *Going local: Creating Self-reliant Communities in a Global Age*. Routledge, 2000.
———. "Relocalizing Business." In *State of the World 2010: Transforming Cultures: From Consumerism to Sustainability*. W. W. Norton and Company, 2010.
Singer, Irving. *The Harmony of Nature and Spirit*. Johns Hopkins University Press, 1996.
———. *The Nature of Love, Volume 3: The Modern World*. MIT Press, 2009.
———. *The Nature of Love: Plato to Luther*. MIT Press, 2009.
———. *The Pursuit of Love*. Johns Hopkins University Press, 1995.
Singer, Peter. *Animal liberation: a New Ethics for Our Treatment of Animals*. New York review : distributed by Random House, 1975.

———. *The Animal Liberation Movement: its Philosophy, its Achievements, and its Future*. Old Hammond, 1986.
Snel, Heidi. *Houses of Straw: The Rediscovery of Strawbale Building*, 2004.
Snyder, Gary. "The Place, the Region, and the Commons." In *At Home on the Earth: Becoming Native to our Place: a Multicultural Anthology*, edited by David Landis Barnhill. 1999: University of California Press, n.d.
Soble, Alan. *The Structure of Love*. Yale University Press, 1990.
———. "Union, Autonomy, and Concern." In *Love Analyzed*, edited by Roger E. Lamb. Oxford: Westview, 1997.
Solomon, Robert C. "The Philosophy of Emotions." In *Handbook of Emotions*, edited by Michael Lewis and Jeannette M. Haviland-Jones. Guilford Press, 2000.
Sorokin, Pitirim Aleksandrovich. *The Ways and Power of Love: Types, Factors, and Techniques of Moral Transformation*. Templeton Foundation Press, 2002.
Soulé, Michael E. "Biophilia: Unanswered Questions." In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.
Sterling, Stephen R. *Sustainable Education: Re-visioning Learning and Change*. Green Books for the Schumacher Society, 2009.
Stibbe, Arran. *The Handbook of Sustainability Literacy: Skills for a Changing World*. Green Books, 2009.
"Svanholm Collective Web Page." *Svanholm*, September 2010. http://svanholm.dk/.
Svašek, Maruška. "Introduction: Emotions in Anthropology." In *Mixed Emotions: Anthropological Studies of Feeling*, edited by Kay Milton and Maruška Svašek. Berg, 2005.
Svensson, Karen. "What is an Ecovillage?" In *Ecovillage Living: Restoring the Earth and her People*, edited by Hildur Jackson and Karen Svensson. Green Books, 2002.
Taylor, Nigel. "Ecovillages: Dream and Reality." In *Sustainable Communities: The Potential for Eco-Neighbourhoods*, edited by Hugh Barton. Earthscan, 2000.
"The Global Ecovillage Network - gen.ecovillage.org", March 2011. http://gen.ecovillage.org/.
The Oxford English Dictionary. 2nd ed. Oxford: Clarendon, 1989.
Thomashow, Mitchell. "Toward a Cosmopolitan Bioregionalism." In *Bioregionalism*, edited by Michael V. McGinnis. Routledge, 1999.
Thompson, Evan. *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*. Belknap Press of Harvard University Press, 2007.
"Transition Network", March 2011. http://www.transitionnetwork.org/.
Ulrich, Roger S. "Biophilia, Biophobia, and Natural Landscapes." In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.
Van der Ryn, Sim, and Stuart Cowan. *Ecological Design*. 1st ed. Island Press, 1996.
Varela, Francisco J. "Autopoiesis and a Biology of Intentionality." In *Autopoiesis and Perception: A Workshop with ESPRIT BRA 3352*, edited by B. McMullin and N. Murphy, 4-14. Dublin, 1992.
Varela, Francisco J., Evan Thompson, and Eleanor Rosch. *The Embodied Mind : Cognitive Science and Human Experience*. 1993rd ed. MIT Press, 1991.
Velleman, J. David. "Love as a Moral Emotion." *Ethics* 109, no. 2 (1999): 338-374.
Vlastos, Gregory. "The Individual as an Object of Love in Plato." In *Eros, Agape, and Philia: Readings in the Philosophy of Love*, edited by Alan Soble. Paragon House, 1989.
Wahl, Daniel C. "Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability". University of Dundee, 2006.
"Weft QDA." *http://www.pressure.to/qda/*, n.d.
Weil, Simone. *The Need for Roots: Prelude to a Declaration of Duties towards Mankind*. Routledge, 2002.
Wenz, Peter S. *Environmental Ethics Today*. Oxford University Press, 2001.
Williams, Daniel Day. *The Spirit and the Forms of Love*. The Library of Constructive Theology. Nisbet, 1968.
Wilson, Edward O. *Biophilia*. Harvard University Press, 1984.
———. "Biophilia and the Conservation Ethic." In *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson. Island Press, 1993.
Wolcott, Harry F. *Ethnography: A Way of Seeing*. Rowman Altamira, 1999.

Zeki, Semir. *Splendors and Miseries of the Brain: Love, Creativity, and the Quest for Human Happiness*. John Wiley & Sons, 2009.